



**Acquisition Directorate**

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NCIA/ACQ/2020/7139  
07 October 2020

To : See Distribution List

Subject : **Distribution of IFB-CO-115125-e-FIT: The Provision of COTS IT Hardware Equipment and Associated Support, Amendment 2**

Reference(s) : A. C-M(2015)0025 – NATO Financial Regulations  
B. AC/337-D(2016)0014 – NCIO Financial Rules and Procedures  
C. BC-D(2018)0004 – BC Military Budget Procurement Guidance  
D. Commitment Number: N/A

1. Forwarded herewith for your action is a copy of the subject Invitation for Bid (IFB), Amendment 2.
2. The effective date of this IFB Amendment 2 is: 10 August 2020.

For the Director of Acquisition:

A handwritten signature in black ink, appearing to be 'Ijeoma Ike-Meertens', written over a horizontal line.

Ijeoma Ike-Meertens  
Principal Contracting Officer (Acting)



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and Information Agency  
Agence OTAN d'information  
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**Budget Committee Secretariat**

NCIA/ACQ/2020/7018  
31 August 2020

To : All Nominated Prospective Bidders

Subject : **AMENDMENT 2 TO INVITATION FOR BID – IFB-CO-115125-e-FIT**

Reference(s) : **The Provision of COTS IT Hardware Equipment and Associated Support**

- A. NCIA/ACQ/2020/6346 – Notification of Intent for IFB-CO-115125-e-FAST, and subsequent Amendment 1, original dated 27 March 2020
- B. C-M(2015)0025 – NATO Financial Regulations
- C. AC/337-D(2016)0014 – NCIO Financial Rules and Procedures
- D. BC-D(2018)0004 – BC Military Budget Procurement Guidance
- E. C-M(2002)49 – NATO Security Policy
- F. NCI Agency Invitation for Bid (IFB), NCIA/ACQ/2020/6744, dated 6 July 2020
- G. IFB Amendment 1, NCIA/ACQ/2020/6976, dated 10 August 2020

Dear Madam/Sir,

1. The purpose of this Amendment 2 is to publish the responses to the Clarification Requests (CRs) (CRs A1-A11, P1-P91, and T1-T64 – Attachment 2). Any CRs not addressed in this Amendment 2, will be rolled over into the subsequent Amendment for a response.
2. As a direct or indirect result of these CRs, the following documents have been amended and are re-issued in its entirety. Prospective Bidders are strongly advised to carefully review the revised documents. The changes within the bidding documents are denoted in **red** for ease of traceability.
  - a. Book I: Bidding Instructions
  - b. Book I: Bidding Sheets
  - c. Book II: Contract Special Provisions
  - d. Book II: Statement of Work
  - e. Book II: Statement of Work Annex A – Schedule A
  - f. Book II: Statement of Work Annex A – Schedule B
  - g. Book II: Statement of Work Annex A – Schedule C
3. The closing time for submission of bids in response to this invitation for bid remains **12:00 hours (Brussels Time) on Friday 9 October 2020.**
4. With the exception of the revisions mentioned above, all other IFB documents remain unchanged from their original version as issued on 6 July 2020.
5. The overall security classification of this IFB is «NATO UNCLASSIFIED».



6. This Invitation for Bid and any Amendment thereto remains the property of the NCI Agency and shall be protected in accordance with the applicable national security regulations.
7. This Invitation for Bid does not constitute either a financial or contractual commitment at this stage.
8. Prospective Bidders are advised that the NCI Agency reserves the right to cancel, withdraw, or suspend this IFB at any time in its entirety and bears no liability for bid preparation costs incurred by firms or any other collateral costs if bid cancellation, withdrawal, or suspension occurs.
9. The NCI Agency point of contact for all information concerning this IFB is:  
Werner Goos, Contracting Officer - Contractor  
E-mail: [IFB-CO-115125-e-FIT@ncia.nato.int](mailto:IFB-CO-115125-e-FIT@ncia.nato.int)

For the Director of Acquisition

A handwritten signature in black ink, appearing to read 'Ijeoma Ike-Meertens'. The signature is stylized and somewhat abstract.

Ijeoma Ike-Meertens  
Senior Contracting Officer

**Enclosure:**

- Attachment 1: Clarification Requests Answers
- Attachment 2: Book I: Bidding Instructions\_Amendment 2
- Attachment 3: Book I: Bidding Sheets\_Amendment 2
- Attachment 4: Book II: Contract Special Provisions\_Amendment 2
- Attachment 5: Book II: Statement of Work\_Amendment 2
- Attachment 6: Book II: Statement of Work Annex A – Schedule A\_Amendment 2
- Attachment 7: Book II: Statement of Work Annex A – Schedule B\_Amendment 2
- Attachment 8: Book II: Statement of Work Annex A – Schedule C\_Amendment 2



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Budget Committee Secretariat

IFB-CO-115125-e-FIT

Administration or Contractual Clarification Requests (CRs)

Serial Nr	IFB Book	IFB Section Ref.	Question	Answer	Amendment 2 to IFB (if any)
A.1	1_IFB-CO-115125-e-FIT_Book I-Bidding Instructions	Section 3.1.6.3	In case the bidder propose an item to replace a product from the specification, does NCIA require the new product to match the same vendor as the item in the specification?	<p>(a) Where it is a brand-named item (i.e. from a specific vendor), Bidders are allowed to propose an alternative as long as it is of the same brand name and with the same as or similar to the specifications and configuration as the Agency's baseline requirement.</p> <p>(b) An exception is made on the requirement for Belkin switches (CLIN A.7 of Schedule A in both the bidding sheets and the SOW Annex for Schedule A), where Bidders are allowed to propose an alternative brand item with same as or similar to the specifications and configuration as the Agency's baseline requirement.</p> <p>(c) Where it is a non-brand named item, Bidders are allowed to propose an alternative of their choice as long as it matches or exceeds the requirements and configuration of the Agency's baseline requirement.</p> <p>Please see also paragraph 3.4 of the bidding instructions.</p>	<p>Additional instructions have been added to the bidding instructions under paragraph 3.4 to cover this element.</p> <p>Section 2 of the SOW and the Schedules are also amended to account for this.</p>
A.2	Book I Bidding Instructions	Point 2.6.1	NCIA requires a bid guarantee in the amount of 30,000€. Is this required per lot or is a bid guarantee valid for all lots in total?	A Bid Guarantee is no longer required for this IFB.	The requirement for a Bid Guarantee in the Bidding Instructions of Book 1, paragraph 2.6 has been removed from this IFB with this Amendment 2.
A.3	Book I Bidding Instructions	Book I Para 1.9	Could you confirm if we submit for multiple Schedules, we need to submit up to four packages, even though the Bidding Sheets contains all Schedules in one sheet?	Both options are available: (a) Either a single package can be provided for all the schedules a bidder wishes to compete for, or (b) the bidder may provide separate excel sheets per schedule. This second option should however be clearly indicated in the bid.	No amendment.
A.4	Book I Bidding Instructions	Book I Para 2.6	Do you expect one guarantee or one per Schedule?	See answer to A.2.	See answer to A.2.
A.5	Book I Bidding Instructions	Book I Para 2.6	Will you accept a Bid Guarantee stated by a Dutch banking institution provided that it is of course 100% claimable by NCIA?	See answer to A.2.	See answer to A.2.
A.6	Book II_Part IV_Annex A_Schedule_A	A.7	Tender on KVM secure Switches is written on Belkin solution. The solution from BlackBox is NATO approved and the KVM secure range has been sold to NATO since years. Are the potential bidders authorized to offer with Black Box alternative?	Further to the answer to A.1 and specific to this question, Bidders are allowed to propose an alternative solution - for example Black Box - to KVM secure switches as long as the alternative matches or exceeds the minimum requirements of the Agency's originally requested item. In the event a Bidder decides to provide an alternative, they shall provide a Technical Proposal in accordance with paragraphs 3.1.6.3 and 3.4 of the bidding instructions; and note this in the bidding sheets.	The Bidding sheet has been amended to include 3 questions to aid bidders when items are obsolete, or when they propose to provide technical alternatives.
A.7	Book 2 part 1	B.63	Only line 1 & 2 of B.63 are written on Allied Telesis while the others are referring to BlackBox & Microsens. The Black Box equivalent for line 1 & 2 has been sold to NATO since years. Are bidders authorized to offer BlackBox Alternatives for those 2 lines?	See answer to A.6.	See answer to A.6.
A.8	2_IFB_CO-115125-e-FIT_Book I	Annex A1 - Bidding Sheets is pointed:	<p>"9 Printers, Plotters, DVD Robot 9,1 A4 Multifunction Printer A4 Multifunction Printer-HP Color LaserJet Pro M281FDN 9,2 A3 Printer HP LaserJet Color Enterp. Flow MFP M880z 9,3 A0 Plotter/Scanner HP DesignJet T830 A0 MFP Plotter 9,4 A1 Plotter HP DesignJet T525 A1 Plotter 9,5 DVD Robot Hurricane CD/DVD-Robot, OS Win 7"</p> <p>Could you provide some clarifications about these discrepancies? What should the bidder offer for CLIN 9 and 10?</p>	Correct, CLIN 9, and sub-clins are for "printers, plotters and DVD Robot". CLIN 10 does not exist for Schedule A.	SOW reference is corrected. VOIP is removed.
A.9	8_IFB-CO-115125-e-FIT_Book II_Part IV	Annex A_Schedule_A_Standard End-User Equipment On the other hand in this file "8_IFB-CO-115125-e-FIT_Book II_Part IV_Annex A_Schedule_A_Standard End-User Equipment" is pointed:	<p>"9 VOIP 9.1 IP Telephone 9.2 IP Conference Telephone And in point A.10 Printers, Plotters, DVD Robot are specified."</p> <p>Could you provide some clarifications about these discrepancies? What should the bidder offer for CLIN 9 and 10?</p>	See answer to A.8.	See answer to A.8.
A.10		Book I-Bidding Instructions on page 10 is pointed: "A Bid Guarantee in the amount of EUR 30,000 (thirty thousand Euro) will be required."	<p>Could you provide some clarifications about the guarantee? Is there a template? Will the amount of the guarantee change, if the bidder bids on one Schedule or remain the same?</p>	See answer to A.2.	See answer to A.2.
A.11	2_IFB_CO-115125-e-FIT_Book I - Annex A1 - Bidding Sheets	Sheet "Schedule A (End User)" "Schedule B (Storage)" "Schedule C (Server)" Schedule D (Cisco GPL)"  Assumptions for Delivery and Warranty	Could you please specify, which countries / delivery places are marked as "Other"?	"Other" is hereby deleted from the bidding sheets.	The bidding sheet is amended to remove "other".

IFB-CO-115125-e-FIT

Price Clarification Requests (CRs)

Serial Nr	IFB Book	IFB Section Ref.	Question	Answer	Amendment 2 to IFB (if any)
P.1	Annex I Bidding Sheets vs Book II Annex A_Schedule B	B.3.13	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting.	<p>Please note that the Quantity in the Bidding Sheets is for the full configuration of that Contract Line Item (CLIN) while the quantity listed in the Annex Schedules (SOW) tells you the how many sub-elements are needed a complete configuration of the respective CLIN.</p> <p>For example: In Annex A_Schedule B_B3.13: Option for HPE 3PAR 8000: disk shelf pair HDD 64TB RAW, there are 31 'sub-elements' needed for the full configuration of B.3.13. In the Bidding Sheet, this correlates into 1 Quantity in the Bidding sheets.</p> <p>The quantity of sub-elements in the Annex Schedules (SOW) should guide bidders on how to best propose the baseline unit price for the full configuration in the bidding sheet.</p> <p>Finally, to reduce this confusion, the name 'quantity' in the Annex Schedules (SOW) is changed to read as 'Quantity of sub-elements needed for full Configuration'.</p>	The name 'quantity' in the Annex Schedules is changed to read as 'Quantity of sub-elements needed for full Configuration'.
P.2	Annex I Bidding Sheets vs Book II Annex A_Schedule B	B.3.15	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting.	See answer to question P.1	See answer to question P.1
P.3	Annex I Bidding Sheets vs Book II Annex A_Schedule B	B.3.16	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting.	See answer to question P.1	See answer to question P.1
P.4	Annex I Bidding Sheets vs Book II Annex A_Schedule B	B.3.17	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting.	See answer to question P.1	See answer to question P.1
P.5	Annex I Bidding Sheets vs Book II Annex A_Schedule B	B.3.18	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting.	See answer to question P.1	See answer to question P.1
P.6	Annex I Bidding Sheets vs Book II Annex A_Schedule B	B.8.3	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting.	See answer to question P.1	See answer to question P.1
P.7	Annex I Bidding Sheets vs Book II Annex A_Schedule B	B.9.3	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting.	See answer to question P.1	See answer to question P.1
P.8	Annex I Bidding Sheets vs Book II Annex A_Schedule B	B.9.4	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting.	See answer to question P.1	See answer to question P.1
P.9	Annex I Bidding Sheets vs Book II Annex A_Schedule B	B.9.5	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting.	See answer to question P.1	See answer to question P.1
P.10	Annex I Bidding Sheets vs Book II Annex A_Schedule B	B.9.6	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting.	See answer to question P.1	See answer to question P.1
P.11	Annex I Bidding Sheets vs Book II Annex A_Schedule B	B.9.7	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting.	See answer to question P.1	See answer to question P.1
P.12	Annex I Bidding Sheets vs Book II Annex A_Schedule B	B.10.1	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting.	See answer to question P.1	See answer to question P.1
P.13	Annex I Bidding Sheets vs Book II Annex A_Schedule B	B.10.2	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting.	See answer to question P.1	See answer to question P.1
P.14	Annex I Bidding Sheets vs Book II Annex A_Schedule B	B.10.3	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting. The SOW reference is covering various products in various quantities. Please clarify the exact baseline for quoting.	See answer to question P.1	See answer to question P.1
P.15	Annex I Bidding Sheets vs Book II Annex A_Schedule B	B.10.4	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting.	See answer to question P.1	See answer to question P.1
P.16	Annex I Bidding Sheets vs Book II Annex A_Schedule B	B.10.5	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting.	See answer to question P.1	See answer to question P.1
P.17	Annex I Bidding Sheets vs Book II Annex A_Schedule B	B.10.6	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting.	See answer to question P.1	See answer to question P.1
P.18	Annex I Bidding Sheets vs Book II Annex A_Schedule B	B.10.7	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting.	See answer to question P.1	See answer to question P.1
P.19	Annex I Bidding Sheets vs Book II Annex A_Schedule B	B.12	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting.	See answer to question P.1	See answer to question P.1
P.20	Annex I Bidding Sheets vs Book II Annex A_Schedule B	B.13	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting.	See answer to question P.1	See answer to question P.1
P.21	Annex I Bidding Sheets vs Book II Annex A_Schedule B	B.14	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting.	See answer to question P.1	See answer to question P.1
P.22	Annex I Bidding Sheets vs Book II Annex A_Schedule B	B.45	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting.	See answer to question P.1	See answer to question P.1
P.23	Annex I Bidding Sheets vs Book II Annex A_Schedule B	B.46	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting.	See answer to question P.1	See answer to question P.1
P.24	Annex I Bidding Sheets vs Book II Annex A_Schedule B	B.47	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting.	See answer to question P.1	See answer to question P.1
P.25	Annex I Bidding Sheets vs Book II Annex A_Schedule B	B.53.1	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting.	See answer to question P.1	See answer to question P.1





P.49	Annex I Bidding Sheets vs Book II Annex A_Schedule B	B.80	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting.	See answer to question P.1	See answer to question P.1
P.50	Annex I Bidding Sheets vs Book II Annex A_Schedule B	B.81	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting. The SOW reference is covering various products in various quantities. Please clarify the exact baseline for quoting.	See answer to question P.1	See answer to question P.1
P.51	Annex I Bidding Sheets vs Book II Annex A_Schedule B	B.92	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting.	See answer to question P.1	See answer to question P.1
P.52	Annex I Bidding Sheets vs Book II Annex A_Schedule B	B.93	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting.	See answer to question P.1	See answer to question P.1
P.53	Annex I Bidding Sheets vs Book II Annex A_Schedule B	B.94	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting.	See answer to question P.1	See answer to question P.1
P.54	Annex I Bidding Sheets vs Book II Annex A_Schedule B	B.95	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting.	See answer to question P.1	See answer to question P.1
P.55	Annex I Bidding Sheets vs Book II Annex A_Schedule B	B.96	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting.	See answer to question P.1	See answer to question P.1
P.56	Annex I Bidding Sheets vs Book II Annex A_Schedule B	B.97	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting.	See answer to question P.1	See answer to question P.1
P.57	Annex I Bidding Sheets vs Book II Annex A_Schedule B	B.98	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting.	See answer to question P.1	See answer to question P.1
P.58	Annex I Bidding Sheets vs Book II Annex A_Schedule B	B.99	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting.	See answer to question P.1	See answer to question P.1
P.59	Annex I Bidding Sheets vs Book II Annex A_Schedule B	B.101	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting.	See answer to question P.1	See answer to question P.1
P.60	Annex I Bidding Sheets vs Book II Annex A_Schedule C	C.4.1	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting.	See answer to question P.1	See answer to question P.1
P.61	Annex I Bidding Sheets vs Book II Annex A_Schedule C	C.39	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting.	See answer to question P.1	See answer to question P.1
P.62	Annex I Bidding Sheets vs Book II Annex A_Schedule C	C.44	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting. The SOW reference contains a long list of equipment in different quantities. Please confirm the exact baseline for quoting.	See answer to question P.1	See answer to question P.1
P.63	Annex I Bidding Sheets vs Book II Annex A_Schedule C	C.45	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting.	See answer to question P.1	See answer to question P.1
P.64	Annex I Bidding Sheets vs Book II Annex A_Schedule C	C.46	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting.	See answer to question P.1	See answer to question P.1
P.65	Annex I Bidding Sheets vs Book II Annex A_Schedule C	C.48	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting.	See answer to question P.1	See answer to question P.1
P.66	Annex I Bidding Sheets vs Book II Annex A_Schedule C	C.50	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting.	See answer to question P.1	See answer to question P.1
P.67	Annex I Bidding Sheets vs Book II Annex A_Schedule C	C.51	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting. The SOW reference is covering various products in various quantities. Please clarify the exact baseline for quoting.	See answer to question P.1	See answer to question P.1
P.68	Annex I Bidding Sheets vs Book II Annex A_Schedule C	C.52	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting.	See answer to question P.1	See answer to question P.1
P.69	Annex I Bidding Sheets vs Book II Annex A_Schedule C	C.53	Inconsistent with the way a unit should be priced (Pricing ladder principles). Please confirm the quantity to be used as a single unit for quoting.	See answer to question P.1	See answer to question P.1
P.70	SSS	B.9/B.10/B.11/B.12/B.13/B.14/B.15/B.16/B.17/B.18/B.19/B.20/B.21/B.29/B.30/B.40/B.41/B.42/B.48/B89/B79/B80 /B64/B.60/ Of Schedule B	The SSS contains a number of interchangeable items. They are basically the same items, the only difference is the vendor. This applies to a number Copper patchcables, Optical fiber patchcables and Adapters such as display port adapters. Can NATO please confirm the Supplier can substitute brands for these types of equipment as long as the functional specifications are met.	The Agency confirms that the items listed in these CLINs are brand specific for interoperability reasons.  When a brand is mentioned, this brand is the preferred.  However, an alternative of the same brand name may be proposed in accordance with paragraphs 3.4.2-3.4.6 of the Bidding Instructions.	See added paragraphs 3.4.2-3.4.6 of the Bidding Instructions.
P.71	SSS		Across Schedules A, B and C we come across different CISCO items. Since there's a single Schedule D to cover the entire CISCO GPL, can NATO please confirm ALL CISCO items will fall under Schedule D and update the SSS by removing these items from the other Schedules.	See answer to question P.40	See answer to question P.40
P.72	SSS		Can NATO please confirm that all SFP's need to be branded name SFP's only - be it CISCO, DELL, HP, or others. If confirmed can NATO please define for each of the SFP lines the correct brand.	If the SFP sub-element is part of a brand-name configuration set (see for example item# 40 and 41 of B.3.6 in the Annex A-Schedule B), then the SFP must be of the same brand.	No amendment.

P.73	SOW Annex A_Schedule B Storage equipment	B.23; B.24; B.26; B.27; B.61	Under these SOW references 2 types of support are listed but - can NATO please specify which one need to be quoted. Or can the SSS be updated to include separate CLIN lines, so the two types of support can be priced separately.	Both support need to be quoted. The price for both support is to be in the overall unit price.	No amendment.
P.74	Book I Annex A I Bidding Sheets	Schedule D	With regards to the pricing structure of Schedule D - CISCO GPL; a single discount applicable to the entire CISCO GPL will result in an overall lower discount than what could be obtained if the discount structure would be made more granular, so a different discount can be given on different categories of elements of the GPL: Hardware (or subcategories of Hardware) / Subscriptions, Licences / Services (CON SKU's of the GPL) / Resources / Training Credits. Can NATO please re-evaluate the imposed pricing structure for schedule D and adapt to a more granular structure?	The Agency confirms that the discount for CISCO items is for hardware only.	All mention of CISCO GPL (i.e Schedule D) is amended to refer only to Hardware portion of the CISCO GPL. Section 5.4 of the Bidding Instructions has been revised to elaborate this point.
P.75	Book II_Part IV_Annex A_Schedule_B_Storage Equipment	B.60	B.60 in Annex A - multiple NAS solutions are summarized under this section which already was raised as a clarification question previously. However, in the pricing sheet, B.60 is described as a Fiber Optic Cable. Can NATO please confirm the SOW description is correct and change the naming of the CLIN in the SSS.	B.60 specification in the SOW is correct, and will be corrected in the bidding sheets. The specification of the Synology DiskStation is updated to DS920, as opposed to DS918+ B.64 specification and bidding sheets will be corrected as well in order to clarify the data cables.	CLIN 60 in Schedule B is updated to replace "Fiber optic cable - SC - ST - OM3 - 3 meters" with "Synology DiskStation DS920 + 4xTotal Bays NAS Storage System Intel Celeron Quad-core (4 Core)" CLIN 64 description in Schedule B, as well as the name in the specification of Annex A Schedule B is changed from "Fiber optic cable - SC - ST - OM3 - 3 meters" to "Data cables - length as required"
P.76	Book II_Part IV_Annex A_Schedule_B_Storage Equipment	B.45	B.45 Concerns a Netapp Configuration but there are also Cisco SFP modules included (config lines 5 and 6) in the product breakdown. Can NATO please confirm that the Cisco products are subject to schedule D instead and remove them from the NetApp configuration?	See answer to question P.40	See answer to question P.40
P.77	Book II_Part IV_Annex A_Schedule_B_Storage Equipment	B.46	B.46 Concerns a Netapp Configuration but there are also Cisco SFP modules included (config lines 5 and 6) in the product breakdown. Can NATO please confirm that the Cisco products are subject to schedule D instead and remove them from the NetApp configuration?	See answer to question P.40	See answer to question P.40
P.78	Book II_Part IV_Annex A_Schedule_B_Storage Equipment	B.9.1	B9.1 Concerns Cisco equipment, can it be confirmed that the Cisco products are subject to schedule D instead?	The Agency confirms that all CISCO Items will be covered by Schedule D, and therefore are to be removed from Schedules A, B, and C.	These Cisco parts are removed from the bidding sheets and the specifications of Schedule B. Additional information has been added to the SOW and the different Schedules.
P.79	Book II_Part IV_Annex A_Schedule_B_Storage Equipment	B.9.2	B9.2 Concerns Cisco equipment, can it be confirmed that the Cisco products are subject to schedule D instead?	See answer to question P.78	See answer to question P.78
P.80	Book II_Part IV_Annex A_Schedule_B_Storage Equipment	B.29	B.29 Concerns multiple cable types and lengths in one SOW reference, Please confirm if these should be treated as the baseline for a single CLIN price (totalling up the prices of all cables) or if these should be treated as separate CLIN items, in which case the SSS need to be adapted.	The different cables shall be considered sub-clins to B.29, in order for different prices to be allocated.	CLIN B.29 is expanded with 15 sub-CLINs
P.81	Book II_Part IV_Annex A_Schedule_B_Storage Equipment	B.30	B.30 Concerns multiple cable types and lengths in one SOW reference, Please confirm if these should be treated as the baseline for a single CLIN price (totalling up the prices of all cables) or if these should be treated as separate CLIN items, in which case the SSS need to be adapted.	The different Patch Cables shall be sub-clins to B.30, in order for different prices to be allocated	CLIN B.30 and corresponding sub-clins are hereby reordered and resubmitted.
P.82	Book II_Part IV_Annex A_Schedule_B_Storage Equipment	B.64	B.64 Concerns multiple cable types and lengths in one SOW reference, Please confirm if these should be treated as the baseline for a single CLIN price (totalling up the prices of all cables) or if these should be treated as separate CLIN items, in which case the SSS need to be adapted.	The different Data Cables shall be sub-clins to B.64, in order for different prices to be allocated	CLIN B.64 is expanded with 4 sub-CLINs
P.83	IFB_CO-115125-e-FIT_Book I – Annex A1	Sheets „Schedule A (End User)” and „Schedule B(Storage)	Sheets „Schedule A (End User)” and „Schedule B(Storage)” contain additional items below the table, specifically „Schedule A (End User)” from row 210 and „Schedule B(Storage)” from row 274. Please advice if these items should be part of the main table.	The Agency confirms that these are not part of the main table and will be removed in Amendment 1	All rows below the index and instructions are removed from the bidding sheets, and will not be part of any eventual contract.

P.84		Bidding Sheets Schedule D	Cisco GPL discounts are based on multiple categories. Can the sheet be adjusted to allow for the several GPL categories? If no; one discount can be provided, just be aware that this will be much lower than would be possible when splitting the categories.	See answer to question P.74	See answer to question P.74
P.85		Bidding Sheets	Several lines have Quantity 0, how do you require pricing for those items? For example, just at the 1-5 range seems enough, and 100+ seems unnecessary.	Yes - all CLINs require prices in the bid to be considered compliant. The bidder has to decide how to price the various CLINs, and the various possible quantities, based on the risk and possible reward. The prices could be the same for the different quantities.  The quantities filled in the bidding sheets are for evaluation purposes only. They are notional and therefore no rights may be derived from them.	No amendment.
P.86	Bidding Sheets & Schedule A	CLIN 9	Can we get an estimation about the printer volumes? o A3 vs A4 o Estimated nr's per Country	The Agency does not have an estimation. The bidding sheets contain notional quantities as well as notional percentages of shipments to different areas within NATO's area of responsibility for evaluation purposes.	No amendment.
P.87	Bidding Sheets	S.1	Installation has been requested as a daily rate. This creates a difficult situation as for example a cabling expert has a very different daily rate than a professional Storage Engineer. How do you expect this to be handled?	We would suggest the Bidders to follow the OEM guidelines for a standard installation service and the required level of expertise. Optimizing such cost is at each Bidder's discretion.	No amendment.
P.88	Bidding Sheets	S.2	Shipment can vary greatly per country, even within Europe, yet only one percentage can be provided per category. Can this be changed?	The Agency recognizes that shipping can vary. However, it is at every Bidder's discretion to optimize the costs as part of its bid preparation.	No amendment.
P.89	Bidding Sheets	S.3	Brands calculate warranty extension prices very differently, varying from 1 to 15 %, not all brands, especially for accessoires offer the possibility to extend warranty periods. How do you wish this to be handled?	The Agency cannot provide further guidance on this. It is at every Bidder's discretion to optimize the costs as part of its bid preparation.	No amendment.
P.90	Bidding Sheets	S.3	Some equipment already includes an extension to three years in the required configurations, how to handle these?	The unit prices include the warranty specified within the SOW (including annexes), meaning if an annex specifies 3-years or 5-years warranty for an item, then the standard unit price shall include that warranty period.  The extension CLIN specified in SSS is valid only for items with 1-year warranty. If an item is specified with 3-years and more warranty, then there will be no extension.  The SOW Section 3.11 and Bidding Sheets will be updated to explain this.	SOW and Bidding Sheets are amended.
P.91	Bidding Sheets		Please provide an indication of the percentage of equipment that will have to be delivered to the USA.	This was included in the bidding sheets on every schedule as a separate table.  For the USA, the assumption for evaluation purposes is 20%, but it is important to realise that this is an assumption and no rights may be derived from this.	No amendment.

IFB-CO-115125-e-FIT  
Technical Clarification Requests (CRs)

Serial Nr	IFB Book	IFB Section Ref.	Question	Answer	Amendment 2 to IFB (if any)
T.1	Book II Part IV SOW	3.11.5	The description of the services in this table are typically and only made available by the hardware suppliers as part of their Maintenance/Support contracts on the hardware they deliver. Looking at the requirements in 3.11.5 - can NATO confirm that the 'warranty requirements' as specified need to be included in the hardware price on each of the elements in the SSS and SOW Annexes by adding the cost for relevant Maintenance/Support contracts?	This contract can be awarded to the resellers as well as the OEM's. If the contract is awarded to a reseller, then it means the Agency is procuring the items and its warranty services from the reseller in compliance with the requirements defined in the SOW. In any case, it's expected that unit price includes the specified warranty services.	No amendment.
T.2	Book II Part IV SOW	3.11.5	Can NATO please confirm that the initial duration of the maintenance contract that needs to be included in the hardware price is 1 year?	The standard warranty duration is 1-year unless a specified warranty duration is provided in the equipment specification in the applicable annex. Following that, if 3 year or 5 year warranty is defined for an item, then the unit price shall include that specified duration as the warranty. The SOW Section 3.11 and Bidding Sheets will be updated to explain this note.	SOW 3.11 and Bidding Sheets Schedule Instructions are amended.
T.3	Book II Part IV SOW	1.1.3	Can NATO please be more specific about the 'third party' mentioned? Is the supplier required to deliver to other entities than NATO entities? If so, please specify which entities.	Third Party' is changed to read as 'NATO's Affiliates'. The website with the list of Affiliates has been added to this paragraph.	Paragraph 1.1.3 is amended to reflect as NATO's Affiliates rather than 'Third Party'.
T.4	Book II Part IV SOW	1.1.3	Can NATO please be more specific about the 'third party' mentioned? Is the supplier required to deliver to locations outside NATO countries? If so, please specify which countries are in scope.	See answer to question T.3	See answer to question T.4
T.5	Book II Part IV SOW	4.6.	With regards to the product catalogue - it make sense to maintain a product catalogue for schedules A, B and C since these schedules are containable BOM based product lists. However with regards to schedule D - CISCO, it does not make sense, nor is it possible, to copy the entire GPL of CISCO on a supplier platform. Please confirm NATO accepts that the supplier will work with the on-line tools provided by CISCO and therefore doesn't need to maintain a seperate and specifically build product catalogue for schedule D.	The Agency confirms that a product catalogue for Schedule D is not required, and that on-line tools provided by CISCO is sufficient.	No amendment.
T.6	Book II Part IV SOW	2.1.8	with regards to 'Installation Services' - can NATO please specifically define which activities are the responsibility of the supplier and which installation activities will be executed by NATO. In this context can NATO please also clearly describe which information, design documentation, configuration files, layouts,...will be CFE to the supplier.	The installation and configuration activities are limited to the standard racking, basic set-up configuration, electrical connection and predefined HW/SW/FW configuration selection . There will be no design or complex implementation tasks requiring NCIA to provide any design documentation.	No amendment.
T.7	Book II Part IV SOW	2.1.9	Different equipment might be installed in different security zones of NATO's organization. Can NATO therefore specify on a per CLIN basis which security clearance is required for the corresponding installation services.	The Agency cannot specify on a per CLIN basis what the required security clearance level will be. This will be known on a per Task Order level. Regardless, if a security clearance is required on a Task Order, it is expected to be no more than NATO S3CRET in accordance with paragraph 3.10.2 of the SOW.	Paragraph 3.10.2 of the SOW is clarified on the expected level of security clearance.
T.8	Book II Part IV SOW	4.3	Can NATO please explain how the KPI's will be used in case of a single order consisting of items with different specified delivery lead times?	In the event there are different delivery lead times per the Task Order (TO), then the Scorecard will reflect this in the different KPI's, on a different line. The same applies when there are different delivery destinations for a single TO. It will be multiple lines with TO#.  In the event there are different lead times for the different items within a single TO, and there has been only one delivery lead time set in the TO, the date of the final arrival will be the date reflected in the scorecard.	No amendment.
T.9	Statement of Work	3.7.5	"If there are any licenses related to the products, the Contractor shall register these licenses under related accounts communicated by the Purchaser. The Contractor shall request the related enterprise account information before completing the registration activities": this activity will require the Purchaser to create new user account (on behalf of the contractor) on vendor's portals; in some cases, user account must be associated with customer's email domain: will NCIA Reach laptops be granted to contractor personal ?	It is not envisioned that contractor personnel will need or receive NCIA Reach laptops.  In the event of license purchase, the Contractor shall register these licenses under related accounts communicated by the Purchaser, as noted in SOW 3.7.5.	No amendment.
T.10	Statement of Work	3.11.1	Can NATO please confirm that the Contractor support is limited to HW repair management ? No Level3 support (through contractor Service Desk) has to be delivered for SW issues (bugs, config support, ..).	Both HW and SW components are under the specified warranty, which includes the SW defects to be fixed within the warranty scope. However, there is no SW support required for configuration or technical assistance.	No amendment.
T.11	Statement of Work	3.11.4	Can NATO please confirm a 24x7 Contractor help-desk is required ?	The requirements are based on the warranty response and resolution KPI's. As long as these requirements are met by the Contractor and its warranty/support arrangement, there is no specific requirement for a 24/7 help desk.	No amendment.
T.12	Statement of Work	3.1	Installation services: could you confirm Installation services will be limited to Rack&Stacking ? No design and config work expected ? (if design/config, the 10 business days lead time may be jeopardized)	There is no design scope included in this contract. Configuration will be limited to the OEM offers such as module and SW/HW configuration to be selected from the product basket, and basic configuration tasks within the standard OEM installation services.	No amendment.
T.13	IFB-CO-115125-FIT-SOW Annex A Schedule B	Item B.11 and Item B.86 (Palo Alto Networks PA-3260) of Schedule B	Both items (B.11 and B.86) have the same specification and quantities. Is there any reason why these items are two separate CLIN items?	B.86 is an incorrect repetition, and is hereby transformed into a reserved CLIN.	B.86 is converted into a reserved CLIN in the bidding sheets, and Specifications Annex.

T.14	IFB-CO-115125-FIT-SOW	Schedule A, B and C	The quantities in technical specification (Schedule A, B and C) and Bidding sheet (2_IFB_CO-115125-e-FIT_Book I - Annex A1 - Bidding Sheets) are in some cases misleading. For example: Item C.51 contain a specification for a HP EliteDisplay E243i 60,96 cm (24") Business Monitor with quantity 166. Does it mean that in the bidding sheet a quantity of 1 for C.51 represents 166 items? Same applies to C.45 (10qty), C.48 (3qty), C.50 (11qty) and many more.	See answer to question P.1	See answer to question P.1
T.15	IFB-CO-115125-FIT-SOW	Schedule B, C	Items B.67, B.88 and C.26 are Cisco products. We assume that these products should not be in these Schedules and should be priced in Schedule D (Cisco GPL)	The Agency confirms that all CISCO Items will be covered by Schedule D, and therefore are to be removed from Schedules A, B, and C. However, where Cisco is listed as part of a sub-element CLIN, this shall be included and priced as part of that CLIN and not as part of Schedule D.	The items B.67, B.88, and C.26 are hereby transformed into reserved CLINs in both the bidding sheets, and Specification annex's. Additional information has been added to the SOW and the different Schedules.
T.16	IFB-CO-115125-FIT-SOW	Schedule C	The specification contain multiple products from the HPE Proliant Blade Servers and c7000 Blade enclosure systems, specifically C.1, C.1.1, C.1.2, C.2, C.2.1, C.2.2, C.3., C.3.1, C.3.2, C.3.3, C.3.4, C.3.5, C.3.6, C.4, C.4.2, C.4.3, C.4.4, C.4.4.1, C.5, C.5.1, C.5.1.1, C.5.2, C.5, c.5.1, C.5.1.1, C.5.2, C.5.3, C.6, C.7, C.7.1, C.7.1.1, C.8, C.10, C10.1, C.10.2, C.10.3, C.10.4, C.11, C.12, C.12.1, C.12.2, C.12.3, C.12.4, C.19, C.27, C.34. All the above stated items are obsolete and replaced by products from the HPE Synergy product line, which is also included in the Bidding Sheet, item C.25. Should we state alternative solutions from the HPE portfolio or will NCIA update the technical specification with new items?	Please see the answer to A.1 regarding proposing alternatives as a result of obsolescence.	See answer to question A.1
T.17	Book II_Part IV_Annex A_Schedule_A & B & C	Schedule_A & B & C	The specification contains configurations that requires support extending the 1 year requirement. For example C.22 requires 5 year support, C.1 requires 3 year support, etc. there are many examples. On the other hand the bidder is required to provide a fix percentage for warranty extension from 1 to 3 years (see bidding sheet) that will be calculated on top of the price for the whole order, which in many cases will be applied for items that already must have a 3 year support. The question is does NCIA still requires from the Bidders to cost the warranty as stated in the specification, even if it's 3 or 5 years?	The unit prices include the warranty specified within the SOW (including annexes), meaning if an annex specifies 3-years or 5-years warranty for an item, then the standard unit price shall include that warranty period. The extension CLIN specified in SSS is valid only for items with 1-year warranty. If an item is specified with 3-years and more warranty, then there will be no extension. The SOW Section 3.11 and Bidding Sheets will be updated to explain this note.	SOW 3.11 and Bidding Sheets Schedule Instructions are amended.
T.18	Book II_Part IV_Annex A_Schedule_B	Schedule_B	None of the HPE server configurations contain an iLO component, that is crucial for server management, we would like to confirm if NCIA requires the HPE servers to be delivered without the iLO component?	iLO is an integrated part of the server configurations, this cannot be removed, so it is understood to be included in the requirements, albeit not explicitly referenced.	No amendment.
T.19	9_IFB-9_CO-115125-e-FIT_Book II_Part IV_Annex A_Schedule_B_Storage Equipment	Quantity	How is the total quantity of an item calculated? Some items have quantities stated in specifications that are greater than 1. In such a case, is it considered to be a bundle? For example item C.51.1 contains in the specification a quantity of 166. In the bidding sheet is 166 considered a quantity of 1 or is it 166?	See answer to question P.1	See answer to question P.1
T.20	9_IFB-9_CO-115125-e-FIT_Book II_Part IV_Annex A_Schedule_B_Storage Equipment	Items B.43, B.44 of Schedule B	The vendor does not sell items B.43 and B.44 as a standalone software without hardware. It can be only purchased with the hardware. Please provide specification or more information.	The vendor confirmed that for NATO, it will sell standalone Junos JSB and JSE software, for instance in situations where the hardware is already in place.	No amendment.
T.21	8_IFB-CO-115125-e-FIT_Book II_Part IV_Annex A_Schedule_A_Standard End-User Equipment	First page	The document defines on the first page the maximum dimensions and weight for each device type. Does these dimensions and weights apply to equipment that is Tempested? The tempested items have increased dimension and weight comparing the same non-tempested items.	The maximum dimensions refer to COTS hardware equipment regardless of the TEMPEST certification. It is acknowledged that hardware equipment modified to fulfil TEMPEST certification may exceed the specified dimensions. If the equipment is tested as TEMPEST Level B and C then there is unlikely to be any dramatic changes to the weight, it is also likely that any TEMPEST countermeasures required will be internal to the equipment and therefore dimensions will probably not change. Any equipment exceeding the maximum dimensions and weight will need to be agreed and noted in the contract via an amendment during contract execution.	Additional information has been added to the SOW and the different Schedules.
T.22	8_IFB-CO-115125-e-FIT_Book II_Part IV_Annex A_Schedule_A_Standard End-User Equipment	Items "A.7 10.0 KVM Switches:	The bidding sheet contains requirement that the CLIN item 7 KVM Switch will be Tempested. However, the technical specification does not contain this requirement and mainly does not contain the required level of tempest.	The KVM specifications are updated to reflect the requirement for TEMPEST Level C. However, the KVMs will need to meet the TEMPEST Level required for the Facility Zone in which they will be installed, and may be different levels per Task Order, if necessary. For this competition however, consider TEMPEST Level C.	The specifications and the bidding sheets are updated to reflect the requirement for TEMPEST Level C.
T.23	8_IFB-CO-115125-e-FIT_Book II_Part IV_Annex A_Schedule_A_Standard End-User Equipment	Tempested end-user items Level A and B.	For tempested items on Level A and B are the USB ports typically replaced by different connectors. The bidding documentation does not state the connectors for Tempested items. Does NCIA require a specific connector or the bidder can propose?	To the Agency's understanding certain ports may be blocked but not replaced by different connectors. For TEMPEST Level B and C equipment it is not the norm that USB connectors are replaced with different connectors. However, TEMPEST Level A/B USB Connectors can be replaced with LEMO D9 connectors. If this topic requires further discussion and agreement it will be noted in the contract via an amendment during contract execution.	Additional information has been added to the SOW and the different Schedules.

T.24	8_IFB-CO-115125-e-FIT_Book II_Part IV_Annex A_Schedule_A_Standard End-User Equipment	Item: A.8.38.2 2.0 Desktop Speaker System-Dell AE215	The specification for this item states: "Compatible with T.8.42.1, but with Tempest Level C Certification." However, the document does not contain any item with reference T.8.42.1. Please provide specification for the requested item.	The correct reference is "Compatible with A.8.38.1, but with Tempest Level C Certification".	The change has been made in A.8.38 in Schedule A.
T.25	Book II_Part IV_Annex A_Schedule_A	Schedule_A_Standard End-User Equipment	Does NCIA require, that all SDIP-27/2 Level B and Level C equipment must have built-in TEMPEST power line filtering or TEMPEST power line filtering will be realized at end user premises using a facility TEMPEST power line filters?	Whether built-in power filters are required will depend on the location in which the equipment will be used. If the site requires power filters, this will be made clear via the Task Order.	No amendment.
T.26	9_IFB-9_CO-115125-e-FIT_Book II_Part IV_Annex A_Schedule_B_Storage Equipment	B.47 SW, Per-0.1TB, Premium, NLSAS,01,-P [Cat: K]	Items for B.47 are licenses, that the vendor cannot price or sell separately. They are directly related to hardware, therefore, priced and sold as part of hardware configuration. We advise to add these items to HW equipment.	The licenses should be a sub-CLIN of CLIN 46.	Former B.47 is changed into B.46.1. Former B.46.1 is changed into B.46.2 and made into an option. B.47 is converted into a reserve CLIN in the bidding sheets, and Specifications Annex.
T.27	8_IFB-CO-115125-e-FIT_Book II_Part IV_Annex A_Schedule_A_Standard End-User Equipment	Clin item 2.2 (Schedule A)	Equipment Clin 2.2 stated in Bidding Sheet (e-FIT Book I – Annex A1) does not contain specification in Book II Part IV Annex A_Schedule_A_Standard End-User Equipment.	1000Base-SX and 100-Base FX are different connector types, and have different transmission speeds. While 1000Base sends 1000Mb/sec, 100Base sends 100Mb/sec of data. To remove confusion, CLIN 2.2 has been created with the only difference being this specification.	CLIN 2.2 has been created in the bidding sheets and in Schedule A.
T.28	8_IFB-CO-115125-e-FIT_Book II_Part IV_Annex A_Schedule_A_Standard End-User Equipment	Clin item 7.1 – 7.5 (Schedule A)	Equipment Clin 7.1 – 7.5 contain in specification "Book II Part IV Annex A_Schedule_A_Standard End-User Equipment" links to items 9.9, 9.10, 9.9.1-9.9.6. However, these items are not included in "Book II Part IV Annex A_Schedule_A_Standard End-User Equipment"	This is indeed incorrect. The correct reference regarding the cabling should be "Cablings for two computers and two monitors as specified in A.6, unless otherwise specified in the TO."	Schedule A specifications for A.7.1 - A.7.5 is amended to reflect "Cablings for two computers and two monitors as specified in A.6, unless otherwise specified in the TO."
T.29	Book II_Part IV, Annex A, Schedule A,	A.1.3	We suppose there is a copy-mistake in the points of appearance, case, power, power consumption, lock. Please review this configuration.	Indeed, the specs are amended.	The specification for CLIN A.1.3 are amended in red.
T.30	Book II_Part IV, Annex A, Schedule A	A.3.1	We suppose there is a mistake in the points of performance and processor. Please insert the right information.	Indeed, the specs are amended.	The specification for CLIN A.3.1 are amended in red.
T.31	Book II_Part IV, Annex A, Schedule A	A.3.2	We suppose there is a mistake in the points of performance and processor. Please insert the right information.	Indeed, the specs are amended.	The specification for CLIN A.3.2 are amended in red.
T.32	Book I – Annex A1 – Bidding Sheets	Point 2.1-2.8	The SOW Reference is A.2.2 but this Point does not exist in Book II Annex A Schule A. We assume you mean A.2.1?	Correct, it should have been A.2.1 in the bidding sheets instead of A.2.2	Changed SOW reference to A.2.1 in sub-CLINS 2.1 - 2.8 of Schedule A in the bidding sheets.
T.33	Book I - Bidding Sheets and corresponding Schedule A	Book I – Bidding Sheets, Schedule A Point 4.2; Book II_Part IV, Annex A, Schedule A, A.4.2	For the rugged notebook the SOW reference is A.4.2.1 but isn't it A.4.2?	The difference is correct. This is to allow for separate pricing of the CLINs A.4.2 and A.4.2.1.	No amendment.
T.34	Book I - Bidding Sheets and corresponding Schedule A	Book I – Bidding Sheets, Schedule A Point 6.1.1; Book II_Part IV, Annex A, Schedule A, A.6.1	For the Touch Screen the SOW reference is A.6.1.1 but isn't it A.6.1?	The difference is correct. This is to allow for separate pricing of the CLINs A.6.1 and A.6.1.1.	No amendment.
T.35	Book I – Bidding Sheets, Schedule A	Point 8.18	There is a price requested for this position but 8.18 is just a headline. Is this a mistake or should it be filled out by the bidder?	Correct, this is a header and the bidders are not expected to fill this in. This is grayed out.	The biddingsheets have been amended to no longer ask for a price for this CLIN, only its sub-CLINs.
T.36	Book I - Bidding Sheets and corresponding Schedule A	Book I – Bidding Sheets, Schedule A Point 8.32; Book II_Part IV, Annex A, Schedule A, A.8.32	This monitor is requested in black but as in the SOW reference stated it should be white. Please confirm which colour is requested.	A.8.32 the colour shall read "White".	The Specification and Bidding Sheets for CLIN A.8.32 from Schedule A are amended, to both reflect "white".
T.37	Book I – Bidding Sheets, Schedule A	Point 8.33	There is a price requested for this position but 8.33 is just a headline. Is this a mistake or should it be filled out by the bidder?	Correct, this is a header and the bidders are not expected to fill this in. This is grayed out.	The biddingsheets have been amended to no longer ask for a price for this CLIN, only its sub-CLINs.
T.38	Book I - Bidding Sheets and corresponding Schedule A	Book I – Bidding Sheets, Schedule A Point 8.33.1; Book II_Part IV, Annex A, Schedule A, A.8.33.1	For the media converter the SOW reference is A.8.33.1 but isn't it A.8.33.2? We assume A.8.33.1 and A.8.33.2 are mixed up.	Correct, they are erroneously mixed up.	Schedule A specifications for A.8.33.1 and A.8.33.2 are hereby changed to reflect the bidding sheets.
T.39	Book I – Bidding Sheets, Schedule A	Point 8.38	There is a price requested for this position but 8.38 is just a headline. Is this a mistake or should it be filled out by the bidder?	Correct, this is a header and the bidders are not expected to fill this in. This is grayed out.	The biddingsheets have been amended to no longer ask for a price for this CLIN, only its sub-CLINs.
T.40	Book I - Bidding Sheets and corresponding Schedule A	Book I – Bidding Sheets, Schedule A Point 8.38.2; Book II_Part IV, Annex A, Schedule A, A.8.42.1	For the desktop speaker the SOW reference is A.8.42.1 but isn't it A.8.38.2?	Correct, the correct reference should be A.8.38.2.	SOW reference is corrected.
T.41	Book I – Bidding Sheets, Schedule A	Point 9	The Point 9 in the bidding sheets is double assigned for „Printers, Plotters, DVD Robot" and later „VOIP". We assume this is a mistake?	Correct, CLIN 9, and sub-clins are for "printers, plotters and DVD Robot".	SOW reference is corrected, VOIP is removed.

T.42	Book I - Bidding Sheets and corresponding Schedule B	Book I – Bidding Sheets, Schedule B CLIN 53.1; Book II_Part IV, Annex A, Schedule B, B.53.1	For this product there is a HPE 3Y (3 Year) Proactive Care 24x7 requested. In the SOW reference there is a quantity of 3 stated. Is 3x3Y requested or only 3 year for each switch (1x3Y)? Same for CLIN 53.2, 53.3, 53.4	The warranty is 3-year in total (not 3x3) for every item if it is specified as 3-year.	No amendment.
T.43	Book I – Bidding Sheets, Schedule B	CLIN 60 and 64	CLIN 60 and 64 are mentioned twice. Please correct this CLIN.	B.60 specification in the SOW is correct, and will be corrected in the bidding sheets. The specification of the Synology DiskStation is updated to DS920, as opposed to DS918+ B.64 specification and bidding sheets will be corrected as well in order to clarify the data cables.	CLIN 60 in Schedule B is updated to replace "Fiber optic cable - SC - ST - OM3 - 3 meters" with "Synology DiskStation DS920 + 4xTotal Bays NAS Storage System Intel Celeron Quad-core (4 Core)" CLIN 64 description in Schedule D, as well as the name in the specification of Annex A Schedule B is changed from "Fiber optic cable - SC - ST - OM3 - 3 meters" to "Data cables - length as required"
T.44	Book II_Part IV, Annex A, Schedule B,	B.64	There are 4 different cables in 4 different shapes with 4 different quantities requested. How can the bidder indicate a price for 4 different items here? Is it possible to request the cables in 4 separate CLINS?	B.64 specification and bidding sheets will be corrected as well in order to clarify the data cables.	CLIN 64 description in Schedule B, as well as the name in the specification of Annex A Schedule B is changed from "Fiber optic cable - SC - ST - OM3 - 3 meters" to "Data cables - length as required"
T.45	Book I – Bidding Sheets, Schedule C	CLIN 3	There is a price requested for this position but CLIN 3 is just a headline. Is this a mistake or should it be filled out by the bidder?	Correct, this is a header and the bidders are not expected to fill this in. This is grayed out.	The biddingsheets have been amended to no longer ask for a price for this CLIN, only its sub-CLINS.
T.46	Book I - Bidding Sheets and corresponding Schedule C	Book I – Bidding Sheets, Schedule C CLIN 3.4; Book II_Part IV, Annex A, Schedule C, C.3.4	There is no quantity for this CLIN. We assume there is a quantity of 1 requested?	The quantities provided are notional only, meaning that it is only for evaluation purposes that they are provided. Only issued Task Orders after contract award can confirm quantities.	No amendment.
T.47	Book I – Bidding Sheets, Schedule C	CLIN 10	There is a price requested for this position but CLIN 10 is just a headline. Is this a mistake or should it be filled out by the bidder?	Correct, this is a header and the bidders are not expected to fill this in. This is grayed out.	The biddingsheets have been amended to no longer ask for a price for this CLIN, only its sub-CLINS.
T.48	Book I - Bidding Sheets and corresponding Schedule C	Book I – Bidding Sheets, Schedule C CLIN 24; Book II_Part IV, Annex A, Schedule C, C.24	In the bidding sheets the patch cords should have 3m but in the SOW reference it's 5m. Please confirm which length is requested.	The Patch Cord for C.24 shall be for 3m.	Schedule C specification C.24 is hereby corrected to reflect 3m.
T.49	Book I – Bidding Sheets, Schedule C	CLIN 51	There is a price requested for this position but CLIN 51 is just a headline. Is this a mistake or should it be filled out by the bidder?	Correct, this is a header and the bidders are not expected to fill this in. This is grayed out.	The biddingsheets have been amended to no longer ask for a price for this CLIN, only its sub-CLINS.
T.50	Book II Part IV; SOW	3.11	Will the location of warranty be equal to the delivery location? Or will it be returned to Brunssum by NCIA first?	Since the Agency is supporting customers in all NATO locations, we would like to have the NATO-wide applicable warranty. SOW is amended to clarify.	SOW is amended.
T.51	Book II Schedule A	A.7	In the bidding sheets Tempest is mentioned, which level?	TEMPEST Level C	Bidding Sheets and Specifications Schedule A are amended for CLIN A.7.
T.52	Book II Schedule A	A.1.1	Specifications understandably based on Dell. The next questions will allow for variations if accepted: • Will you accept a grey color? • Can you accept following display which is the typical corporate usage notebook display: 250 nits, contrast Ratio 600:1, NTSC 45% (72% NTSC = 99% sRGB). • I5-8665 is an older CPU which is going EOL by end of this year, and is now already replaced by the I5-10310U at Intel, can you amend the change?	• Yes, Grey colour will be accepted. • This display will not be accepted. • For I5-8665 processor, as long as the CPU can meet the performance criteria is okay to replace it.	Specifications Schedule A is amended to reflect grey colour, and the updated processor.
T.53	Book II Schedule A	A.1.3	Specifications understandably based on Dell. The next questions will allow for variations if accepted: • Will you accept a grey color? • Can you accept following display which is the typical corporate usage notebook display: 250 nits, contrast Ratio 600:1, NTSC 45% (72% NTSC = 99% sRGB). • I5-8665 is an older CPU which is going EOL by end of this year, and is now already replaced by the I5-10310U at Intel, can you amend the change? • I7-8665 is an older CPU, and is now replaced by the I7-10610U at Intel, can you amend the change?	• See answer to T.53 • In addition, for I7-8665, as long as the proposed CPU can meet the required performance criteria, it is okay to replace it	Specifications Schedule A is amended to reflect grey colour, and the updated processor.
T.54	Book II Schedule A	A.1.4	Specifications understandably based on Dell. The next questions will allow for variations if accepted: • Will you accept a grey color? • Can you accept following display which is the typical corporate usage notebook display: 250 nits, contrast Ratio 600:1, NTSC 45% (72% NTSC = 99% sRGB). • I5-8665 is an older CPU which is going EOL by end of this year, and is now already replaced by the I5-10310U at Intel, can you amend the change? • I7-8665 is an older CPU, and is now replaced by the I7-10610U at Intel, can you amend the change?	See answer to T.55	See answer to T.55
T.55	Book II Schedule A	A.4.1 & A.4.1.1	A.4.1 & A.4.1.1 • Would 13 inch also be accepted? • Would Smart Card be accepted as a separate USB connected device, if not integrated to the cover?	• No • No For interoperability reasons, the specified device is requested.	No amendment.



T.56	Book II Schedule A	A.6.3	Can you accept 250 nits as you do in A.6.1, A.6.1.1, A.6.2, A.6.2.1, A.6.2.2, A.6.2.3?	• No	No amendment.
T.57	Book II Schedule A	A.10	Do you require any consumables?	We do not require consumables, except from batteries that may be included in the future.	No amendment.
T.58	Book II Schedule A	A.10	Do the printers need to be compatible with existing Output Management Solutions? If so, which ones? Do we need to provide an Output Management Solution?	We require a follow-me printing solution compatible with PKI smart card and RFID.	No amendment.
T.59	Book II Part IV	3.11.5	Warranty for Tempested equipment cannot be performed onsite even if the device is large because the device will need to be re-tested, can this be amended?	This depends on the tempesting application and type of the item. In any case, the warranty resolution timelins are already longer for tthe reason of re-testing.	No amendment.
T.60	IFB-CO-115125-FIT-SOW	IFB-CO-115125-FIT-SOW, Schedule B, C	Items B.9.1, B.9.2 are Cisco products. We assume that these products should not be in these Schedules and should be priced in Schedule D (Cisco GPL)	See answer to T.15	See answer to T.15
T.61	In general		Is it permitted to offer in principle the follow-up products for products that go end of life?	The eventual contracts have obsolescence management built into the contracts. It is therefore preferred that the bidder provides the item as requested unless it is obsolete. If obsolete, please address in accordance with paragraph 3.4 of the bidding instructions.	No amendment.
T.62	Book I – Bidding Sheets, Schedule A Point 2.1 to 2.8; Book II_Part IV,	Annex A, Schedule A, A.2.1	In section GPU among other things there is the requirement for a dvi connection; is it possible to realise this with a (passive) adapter cable (e.g. display port on dvi)?	In theory yes, but not for the Tempest-ed CLINs A.2.3 and beyond. Part of the secure print solution is either a proximity badge reader support or smartcard reader support. If this issue requires formalization during contract execution, it will be included in the contract via a contract amendment.	No amendment.
T.63	Book I – Bidding Sheets, Schedule A Point 6.1 and 6.1.1;	Book II_Part IV, Annex A, Schedule A, A.6.1 and A.6.1.1	In section Tilt and Swivel the minimum requirements are Tilt: +90deg/-5deg minimum; We assume this is a mistake and you mean Tilt: +60deg/-5deg minimum; Is this correct?	Yes, the correct values are Tilt +60deg/-5deg minimum	The Specification of CLIN A.6.1 in Schedule A is amended.
T.64	Book I – Bidding Sheets, Schedule A Point 8.34;	Book II_Part IV, Annex A, Schedule A, A.8.34	In section Max fan sound level the minimum requirements are < 30db; the requested projector type LG PH 550G has a max. fan sound level < 34 / 26 db (norm/eco), is that acceptable?	Yes, fan speeds are depending on CPU use, so during normal operation, DB should be within acceptable range	No amendment.

**NATO Communications and Information Agency**



**IFB-CO-115125-e-FIT  
BOOK I**

**BIDDING INSTRUCTIONS**

- Provision of -

**COTS IT  
HARDWARE AND ASSOCIATED SUPPORT  
AMENDMENT 2**

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## 1. SECTION I - INTRODUCTION

- 1.1 The purpose of this Invitation for Bids (IFB) is to establish up to four (4) Indefinite Delivery Indefinite Quantity (IDIQ) Contract(s) for the provision of Hardware and Associated Support for a basic period of three (3) years plus two 12-month option periods. The following scope will be covered by the resulting Contract(s), referred hereafter as Schedules:
- 1.1.1. Standard End-User Equipment
  - 1.1.2. Storage Equipment
  - 1.1.3. Server Equipment
  - 1.1.4. Cisco Global Price List<sup>1</sup>
- 1.2 The items and devices that constitute the scope of the different Schedules are listed in Annex A of the Prospective Statement of Work (Book II Section IV), with the sole exception of Schedule D, which is the Cisco Global Price List as maintained by Cisco and included by reference only.
- 1.3 The Contract's requirements are set forth in the Contract Schedule of Supplies and Services (Book II Section I) and in the prospective Contract Statement of Work.
- 1.4 This IFB is issued in accordance with the Procedures set forth in the NATO Financial Regulations, the NCIO Financial Rules and Procedures, and the BC Military Budget Procurement Guidance. In accordance thereof, bidding to the project is restricted to companies from participating NATO member nations.
- 1.5 The security of this Invitation for Bid is "NATO UNCLASSIFIED".
- 1.6 This IFB will not be the subject of a public bid opening.
- 1.7 This IFB may result in multiple Contract Awards, as each individual Schedule is subject to a separate evaluation. Award of the prospective Contract(s) pursuant to this IFB will be made to the Bidder that has offered the lowest evaluated price to any particular Schedule, and has been determined to be technically compliant with the requirements of the IFB in accordance with the evaluation criteria. The Bid evaluation criteria and the detailed evaluation procedure is described in Section 4 of these Bidding Instructions.
- 1.8 The Bidder may bid on one or more Schedules, but shall ensure these bids are provided as separate and complete packages as per the instructions at 3.1.3. If a single Bidder is evaluated to be the lowest technically compliant bidder for multiple Schedules in accordance with the evaluation criteria laid out in Section 4, these Schedules will be combined to form a single Contract.

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<sup>1</sup> With Amendment 2 to this IFB it is clarified that the Cisco Global Price List (GPL) only refers to the Hardware sub-categories of the Cisco GPL. See section 5.4 of these Bidding Instructions.

- 1.9** Award of the resulting Contract(s) will be made on a firm fixed unit price basis for Schedules A, B and C; and on a firm and fixed discount basis for Schedule D.
- 1.10** The solicitation, evaluation and award processes will be conducted in accordance with the terms and conditions contained herein.
- 1.11** 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 paragraph 2.8 of Section II of these Bidding Instructions entitled "Requests for IFB Clarifications".
- 1.12** The target date for Contract award(s) is by **December** 2020.

## **2. SECTION II - GENERAL BIDDING INFORMATION**

### **2.1 DEFINITIONS**

- 2.1.1** 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.
- 2.1.2** The term "Bidder" as used herein refers to a firm, consortium, or joint venture which submits an offer in response to this solicitation.
- 2.1.3** The term "Compliance" as used herein means strict conformity to the requirements and standards specified in this Invitation for Bids.
- 2.1.4** The term "Contractor" refers to a firm of a participating country which has signed a Contract under which he will perform a service, manufacture a product, or carry out works for NATO.
- 2.1.5** The term "Participating Country" as used herein means any of the NATO member nations ([https://www.nato.int/cps/en/natohq/nato\\_countries.htm](https://www.nato.int/cps/en/natohq/nato_countries.htm)) contributing to the project.
- 2.1.6** The term "Purchaser" refers to the authority issuing the IFB and/or awarding the Contract (the NCI Agency).
- 2.1.7** The term "Sub-Assembly" as used herein refers to a portion of an assembly consisting of two or more parts that can be provisioned and replaced as an entity. The definition purposely excludes components and/or parts.

### **2.2 ELIGIBILITY**

- 2.2.1** All Contractors, sub-Contractors and manufacturers, at any tier, shall be from participating countries. All Contractors shall have had a Declaration of Eligibility submitted by their respective Governments prior to the Bid Closing Date.
- 2.2.2** None of the work, including project design, labour and services shall be performed other than by firms from and within Participating Countries.
- 2.2.3** This requirement shall also apply to all personnel involved in this project as a result of subcontracts issued by the Contractor for effort under the prime Contract.
- 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** The intellectual property rights to all design documentation and related system operating software shall reside in NATO member countries, and no license fee, or royalty charges shall be paid by the Contractor to firms, individuals or governments other than within the NATO member countries.

## **2.3 BID DELIVERY AND BID CLOSING**

**2.3.1** All Bids shall be in the possession of the Purchaser at the address given below **before 12h00 p.m. (Brussels Time) on Friday, 09 October 2020**, at which time and date bidding shall be closed.

**2.3.2** Due to the COVID-19 restrictions imposed by some governments and organisations within the NATO alliance, the Purchaser is permitting bidders to submit Bids via email. The complete Bid shall be e-mailed, as specified below, to the following address only: [IFB-CO-115125-e-FIT@ncia.nato.int](mailto:IFB-CO-115125-e-FIT@ncia.nato.int)

**2.3.3** The Bid shall consist of two (2), or three (3) separate emails as elaborated in Paragraph 3.1.6 below. The different emails correlate to the required Bid Packages. A third email containing a Technical Proposal is only required if alternatives to the requirements in the scope of the applicable Schedule are proposed.

**2.3.4** Bids which are delivered to the Purchaser after the specified time and date set forth in 2.3.1 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.

**2.3.6** The potential risk with respect to the information security and confidentiality during the electronic transmission of bid documentation remains solely with the Bidder. Under no circumstances can the Purchaser be held liable in case the information security or confidentiality of the documentation is compromised.

**2.3.7** One (1) copy of the Bid shall be submitted via email. The evaluation will be based on the Bid provided via email. Due to the current state of emergency regarding COVID-19, no physical/hard copy versions of the Bid shall be provided.



## **2.4 EXTENSION OF THE BID CLOSING DATE**

- 2.4.1** All questions and requests for extension of bid closing date shall be submitted in writing by e-mail to the Purchaser's point of contact specified in paragraph 2.11 below and shall arrive not later than seven (7) calendar days prior to the stated "Bid Closing Date". The Purchaser is under no obligation to answer requests submitted after this time. Extensions to the bidding date are at the discretion of the Purchaser.
- 2.4.2** Bidders are requested to note that due to the timelines of this IFB, the Purchaser does not encourage requests for extension of the bid closing date.

## **2.5 BID VALIDITY**

- 2.5.1** Bidders shall be bound by the term of their bids for a period of 6 months starting from the Bid Closing Date specified at paragraph 2.3.1 above.
- 2.5.2** In order to comply with this requirement, the Bidder shall complete the Certificate of Bid Validity set forth in Annex B-3. Bids offering less than the period of time referred to above for acceptance by the Purchaser may be determined to be non-compliant.
- 2.5.3** The Purchaser will endeavour to complete the evaluation and make an award within the period referred to above. However, should that period of time prove insufficient to render an award, the Purchaser reserves the right to request an extension of the period of validity of all bids which remain under consideration for award.
- 2.5.4** Upon notification by the Purchaser of such a request for a time extension, the Bidders shall have the right to:
- 2.5.4.1** 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 Certificate of Bid Validity extended accordingly; or
  - 2.5.4.2** refuse this extension of time and withdraw the bid without penalty.
- 2.5.5** 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.

## **2.6 BID GUARANTEE**

- 2.6.1** [RESERVED]

## **2.7 MODIFICATION AND WITHDRAWAL OF BIDS**

- 2.7.1** 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.

- 2.7.2** 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 above 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.
- 2.7.3** 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 shall provide an original statement of the Bidders decision to withdraw the bid.

## **2.8 REQUESTS FOR IFB CLARIFICATIONS**

- 2.8.1** Bidders, during the solicitation period, are encouraged to query and seek clarification of any matters of a contractual, administrative and technical nature pertaining to this IFB.
- 2.8.2** All questions and requests for clarification shall be submitted in writing by e-mail. All questions and requests shall reference the section(s) in the IFB subject for clarifications. The questions and/or requests shall be forwarded to the point of contact specified in paragraph 2.11 below and shall arrive not later than seven (7) calendar days prior to the stated "Bid Closing Date". The Purchaser is under no obligation to answer questions submitted after this time.
- 2.8.3** Bidders are advised that subsequent questions and/or requests for clarification included in a bid shall neither be answered nor considered for evaluation and may be grounds for a determination of non-compliance.
- 2.8.4** Except as provided above, all questions will be answered by the Purchaser, and the questions and answers (deprived of any means of identification of the questioner) will be issued in writing to all prospective bidders.
- 2.8.5** The published answers issued by the Purchaser shall be regarded as the authoritative interpretation of the IFB. Amendments to the language of the IFB included in the answers shall be incorporated by the Bidder in its offer.
- 2.8.6** The Purchaser reserves the right to decline clarification requests that are clearly devised for the purpose of artificially extending the bidding time, i.e. clarifications re-submitted using different wording where such wording does not change the essence of the clarification being requested.

## 2.9 REQUESTS FOR WAIVERS AND DEVIATIONS

**2.9.1** Bidders are informed that requests for alteration to, waivers of, or deviations from the Schedules, the Contract Special Provisions, the NCI Agency Contract General Provisions, the Technical Specifications, the Statement of Work and any other Terms and Conditions of the Prospective Contract will not be considered after the Request for Clarification process.

**2.9.2** Requests for alterations to the other requirements, terms or conditions of the Invitation for Bids or the Prospective Contract may only be considered as part of the clarification process set forth in paragraph 2.8 above. Requests for alterations to the specifications, terms and conditions of the Contract which are included in a Bid as submitted may be regarded by the Purchaser as a qualification or condition of the Bid and may be grounds for a determination of non-compliance.

## 2.10 AMENDMENT OF THE INVITATION FOR BIDS

**2.10.1** The Purchaser may revise, amend or correct the terms, conditions and/or specifications and provisions of the IFB documents at any time prior to the date set for the Bid Closing. Any and all modifications will be transmitted to all prospective bidders by an official amendment designated as such and signed by the Contracting Authority. Such amendment shall be recorded in the Acknowledgement of Receipt which the bidder shall complete and enclose as part of its bid (See Annex B-6). This process may be part of the clarification procedures set forth in paragraph 2.8 above or may be an independent action on the part of the Purchaser.

**2.10.2** 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 PURCHASER POINT OF CONTACT

**2.11.1** Any communication regarding this IFB other than bid delivery shall be addressed to the attention of:

Attention: Mr. Werner Goos  
Tel: +32 2 360 4483  
E-mail: [IFB-CO-115125-e-FIT@ncia.nato.int](mailto:IFB-CO-115125-e-FIT@ncia.nato.int)

## 2.12 CANCELLATION OF INVITATION FOR BIDS

**2.12.1** The Purchaser may cancel, suspend or withdraw for re-issue this IFB at any time prior to Contract award. No legal liability on the part of the Purchaser for payment of any sort shall arise, and in no event will any Bidder have cause for action against the Purchaser for the recovery of costs incurred in connection with preparation and submission of a bid in response to this IFB.

**2.13 ELECTRONIC TRANSMISSION OF INFORMATION AND DATA**

**2.13.1** The Purchaser will endeavour to communicate answers to requests for clarification and amendments to this IFB to the prospective bidders by the fastest means possible, including the use of e-mail where the bidders have forwarded the necessary address information. All bidders are consequently strongly encouraged to provide accurate email addressing information and notify the Purchaser at the earliest practicable date should any changes occur.

### 3. SECTION III - BID PREPARATION INSTRUCTIONS

#### 3.1 GENERAL

- 3.1.1** Bids shall be prepared in accordance with the instructions set forth herein. Failure to comply with these instructions may result in the Bid being declared non-compliant.
- 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. Bids, which are not complete, will be declared non-compliant. By submission of the Bid, Bidders shall have affirmed full compliance and acknowledgement of the Statement of Work requirements, and that all the requirements have been taken into account in the pricing of their Bid.
- 3.1.3** In the event Bidders wish to bid on multiple Schedules it shall clearly note this in its Bid and provide separate bid packages for all applicable Schedules as per the requirements of these Bidding Instructions, to allow for independent and separate evaluation by the Purchaser. As noted in Paragraph 1.8 of the Introduction, this may lead to 1 or more Schedules being awarded to a single Bidder.
- 3.1.4** Bidders shall note that any prospective Contract will be against firm and fixed unit prices. All quantities included in the bidding sheets are for evaluation purposes only.
- 3.1.5** The Bidders shall note that there are no product specifications listed as SOW Annex A for Schedule D, as the Cisco Global Price List (GPL)<sup>2</sup> maintained by Cisco will form the scope of that Schedule D. Bidders shall prepare their bid for Schedule D based on the criteria stated in the Bidding Sheets, as well as the general criteria outlined in this section of these Bidding Instructions. Detailed instructions for Schedule D are laid out in Section 5.4 of Annex A-2, Instructions for the Preparation of Bidding Sheets.
- 3.1.6** Bidders shall prepare their Bid, in two (2) emails, adhering to the following requirements:
- 3.1.6.1** For the first e-mail the subject line shall read: "IFB-CO-115125-e-FIT – Official Bid for [company name] – Part 1 – Administrative Envelope".
- 3.1.6.1.1** The Administrative Envelope shall contain 1 scanned PDF copy with sufficiently attributable digital, or physical, signatures of all the certifications

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<sup>2</sup> With Amendment 2 to this IFB it is clarified that the Cisco Global Price List (GPL) only refers to the Hardware sub-categories of the Cisco GPL. See section 5.4 of these Bidding Instructions.

set forth in Annex B hereto. This pdf shall not be larger than 20MB in total, nor encrypted or password protected.

- 3.1.6.2** For the second e-mail the subject line shall read: "IFB-CO-115125-e-FIT – Official Bid for [company name] – Part 2 – Price Quotation". The Price Quotation shall contain the completed Bidding Sheets in both 1 Excel and 1 PDF copy, not larger than 20MB total. The completed Bidding Sheets shall be readable and searchable, and not be encrypted or password protected.
- 3.1.6.3** In the event the bidder is unable to provide the items matching the specific requirement in the Schedule, an equally technically compliant proposal shall be submitted in accordance with Paragraphs 3.4.1 through 3.4.7.
- 3.1.6.4** In such a case, the bidder shall provide as part of its Bid a Technical Proposal, for which the subject line shall read "IFB-CO-115125-e-FIT – Official Bid for [company name] – Part 3 – Technical Proposal".
- 3.1.6.4.1** This Technical Proposal shall contain 1 Excel and 1 PDF Copy of the list of items it is proposing to replace, along with the alternative thereto, in accordance with Paragraph 3.4.2. All documents contained in the Technical Proposal shall be readable and searchable. The documents shall not be larger than 20MB in total, nor encrypted or password protected.
- 3.1.6.5** In the event the bidder shall provide according to the contract requirements, no third email regarding a Technical Proposal is required.

## **3.2 ADMINISTRATIVE ENVELOPE**

- 3.2.1** In this Envelope the bidder shall include the signed originals of the certifications set forth in Annex B hereto, specifically:
- B-1 Certificate of Legal Name of Bidder
  - B-2 Certificate of Independent Determination
  - B-3 Certificate of Bid Validity
  - B-4 Certificate of Understanding
  - B-5 Certificate of Exclusion of Taxes, Duties and Charges
  - B-6 Acknowledgement of Receipt of Amendments to the IFB (if applicable)
  - B-7 Disclosure of Requirements for NCIA Execution of Supplemental Agreements
  - B-8 Certification of NATO Member Country of Origin of Delivered Equipment, Services, Material and Intellectual Property Rights

B-9 Comprehension and Acceptance of Contract Special Provisions and General Provisions

B-10 List of Prospective Sub-Contractors/Consortium Members

B-11 Certificate of AQAP 2110 or ISO 9001:2008 Compliance

B-12 Disclosure of Involvement of Former NCI Agency Employment

B-13 Supply Chain Security Self-Attestation Statement

**3.2.2** No alternative versions of Certifications will be recognized, and may lead to non-compliance.

**3.2.3** In summary, the Administrative Envelope shall include solely the following documentation:

**3.2.3.1** All certifications in Annex B (Para 3.2.1)

### **3.3 PRICE QUOTATION**

**3.3.1** This envelope shall contain the following documentation and media:

**3.3.2** The electronic file “2\_IFB-CO-115125-e-FIT\_Book I – Annex A1 – Bidding Sheets.xls”, submitted in both Excel and PDF as part of this IFB with all yellow highlighted areas filled in.

#### **General Rules:**

**3.3.3** Bidders shall prepare their Price Quotation by completing the yellow highlighted cells of the Bidding Sheets referred in paragraph 3.3.2 above, in accordance with the instructions specified in Annex A-2.

**3.3.4** The structure of the Bidding Sheets shall not be changed nor should any quantity or item description in the Bidding Sheets. The currency of each Schedule shall be shown.

**3.3.5** 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.

**3.3.6** Bidders shall quote in their own national currency or in EUR, the host nation currency. Bidders may also submit bids in multiple currencies including other NATO member states’ currencies under the following conditions:

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

- 3.3.6.2** the Bidder can demonstrate, either through sub-contract arrangements or in its proposed work methodology, that it will have equivalent expenses in that currency.
- 3.3.7** Bidders shall be aware that the bid will be evaluated in EUR using the exchange rate of the day prior to bid closing date.
- 3.3.8** Offered prices shall not be "conditional" in nature. Any comments supplied in the Bidding Sheets which are conditional in nature, relative to the offered prices, may result in a determination that the bid is non-compliant.
- 3.3.9** The Purchaser, by virtue of its status under the terms of Article IX and X of the Ottawa Agreement, is exempt from all direct taxes (incl. VAT) and all customs duties on merchandise imported or exported. The Bidder, therefore, certifies that the prices stipulated in this Contract do not include amounts to cover such direct taxes or customs duties. Bidders are reminded of the requirement to complete the certification to this effect in Annex B-5.
- 3.3.10** The Bidder shall be responsible for ensuring that its respective Sub-contractors are aware that the Purchaser is exempt from taxes and customs duties. The Contractor (and its respective Sub-contractors) shall be responsible for complying with all applicable national and local legal and administrative procedures to ensure that authorities do not attempt to assess taxes and customs duties on goods and property imported or exported through NATO member nation frontiers under this Contract nor assess direct taxation (VAT) on goods sold to the NCI Agency under this Contract.
- 3.3.11** The Contractor shall be liable for all other taxes, assessments, fees, licences, administrative charges or other Government assessments or charges which are applicable to the performance of this Contract. It is the Contractor's responsibility to inform itself of its liability in each country where such liability may arise.
- 3.3.12** Unless otherwise specified in the instructions for the preparation of bidding sheets, all prices quoted in the proposal shall be DDP (Delivered Duty Paid) to specified destination, in accordance with the International Chamber of Commerce INCOTERMS 2010 and shall also cover all packaging, packing, preservation, insurance and transportation charges. Prices quoted shall include all costs for items supplied and delivered to final destination
- 3.3.13** The Bidder's attention is directed to the fact that Price Quotation shall contain no document and/or information other than the priced Bidding Sheets. Any other document of a contractual or technical nature will not be considered for evaluation and may be cause for a determination of non-compliance by the Purchaser.
- 3.3.14** Detailed instructions for the application of these instructions to the different Schedules can be found in Annex A-2.



### 3.4 TECHNICAL PROPOSAL

#### General rules:

- 3.4.1** As outlined in Paragraph 3.1.6.3, a Technical Proposal is only required in the event that a Bidder is unable to provide the items matching the specific requirement in the Schedule.
- 3.4.2** The Purchaser acknowledges the possibility that due to the fast moving nature of changes in technology, that at the time of the bid submission, some of the Agency's requirements may be discontinued, obsolete, or otherwise no longer available, thereby in need of a replacement or substitution.
- 3.4.3** With this acknowledgement, the Purchaser advises that for each Contract Line Item Number (CLIN) in the Schedule, Bidders are allowed to propose an alternative (i.e. a replacement or substitution) if due to discontinuation or obsolescence or the Agency's original requirement this particular item is no longer available or is not best suitable.
- 3.4.4** Any alternative proposed shall be: (a) same as or similar to the specification and configuration as the Agency's baseline requirement and (b) technically compliant.
- 3.4.5** Where it is a brand-named item, Bidders are allowed to propose an alternative of the same brand name with same as or similar to the specification and configuration as the Agency's baseline requirement.
- 3.4.6** An exception is made on the requirement for Belkin switches (CLIN A.7 of Schedule A in both the bidding sheets and the SOW Annex for Schedule A, paragraph A.7), where Bidders are allowed to propose an alternative brand item with same as or similar to the specification and configuration as the Agency's baseline requirement.
- 3.4.7** Where it is a non-brand named item, Bidders are allowed to propose an alternative of their choice as long as it matches or exceeds the requirements or configuration of the Agency's base line requirement.
- 3.4.8** In such a case, Bidders shall submit their Technical Proposal in one bid package per Schedule, with both the item that is to be replaced in the current requirements, as well as its alternative item, clearly listed. This alternative item shall be listed with as a minimum the item description and OEM part number - in compliance with the technical specification addressed in the SOW.

## **4. SECTION IV - BID EVALUATION**

### **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. The Contract(s) resulting from this IFB will be awarded to the bidder(s) whose offer, as evaluated by the Purchaser, is the lowest priced bid and in compliance with the requirements of this IFB.
- 4.1.2** In the event a Bidder wishes to bid on multiple Schedules, and has submitted multiple bid packages as per the instructions in Paragraph 3.1.3, each Schedule shall be evaluated independently and separately by the Purchaser, based on the documentation provided within that particular bid package.
- 4.1.3** The evaluation of bids and the determination as to the compliance or technical adequacy of the supplies and services offered shall be based only on that information furnished by the Bidder and contained in its bid. The Purchaser shall not be responsible for locating or securing any information which is not included in that particular bid package.
- 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 determination 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 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 IFB clarification requests is important and therefore failure to provide the requested clarifications within the time-limits set forth in the specific Clarification Requests may cause the bid to be deemed non-compliant.
- 4.1.6** The evaluation will be conducted in accordance with the NATO Financial Regulations, the NCIO Financial Rules and Procedures, and the BC Military Budget Procurement Guidance set forth in the NATO document BC-D(2018)0004.
- 4.1.7** Evaluation of this IFB will be conducted in accordance with the "One Envelope" procedure; the administrative compliance of the Bids will be evaluated first. Bids that are declared administratively non-compliant may be rejected without further evaluation. Following evaluation for administrative compliance, the Price Proposal of each Bidder is evaluated, and subsequently only the Technical Proposals of the apparent lowest priced bid is evaluated for technical compliance with the requirements of the Statement of Work, in the event a Technical Proposal as per Paragraph 3.1.6.3 has been provided.

- 4.1.7.1** In the event a Technical Proposal has been provided, and evaluated as having failed to satisfy any of the bidding requirements, this may result in a determination of non-compliance for the entire Bid. In such a case the Bidder who has submitted the apparent second lowest priced bid will be evaluated.
- 4.1.8** In the event the apparent lowest priced bid does not contain a Technical Proposal in line with Paragraph 3.1.6.3, it will be considered the lowest priced bid and in compliance with the requirements of this IFB.
- 4.1.9** As noted in Paragraph 1.7, if a single Bidder is evaluated to be the lowest technically compliant bidder for multiple Schedules in accordance with the evaluation criteria, these Schedules will be combined to form a single Contract. If the opposite occurs, and separate Bidders are evaluated to be the lowest compliant for separate Schedules, these Schedules are to be awarded to separate Bidders as separate Contracts.

## **4.2 ADMINISTRATIVE CRITERIA**

- 4.2.1** Prior to commencement of the Price and Technical<sup>3</sup> evaluation, Bids shall be reviewed for compliance with the Bid Submission Requirements of this IFB. These are as follows:
- 4.2.1.1** The Bid was received by the Bid Closing Date and Time.
- 4.2.1.2** The Bid was submitted and marked properly.
- 4.2.1.3** The Administrative Package contains all the requested signed **copies** of the required Certificates attached as Annex B hereto.
- 4.2.2** A Bid that fails to conform to the above requirements may be declared non-compliant and may not be evaluated further by the Purchaser. Bidders whose bids were assessed as administratively non-compliant will be notified only if their proposal is evaluated as the lowest priced bid.
- 4.2.3** If it is discovered, during either the Price or Technical evaluation, that the Bidder has taken exception to the Terms and Conditions of the Prospective Contract, or has qualified and/or otherwise conditioned its offer on a modification or alteration of the Terms and Conditions or the language of the Statement of Work, the Bidder may be determined to have submitted a non-compliant bid.

## **4.3 PRICE CRITERIA**

- 4.3.1** Price Evaluation Criteria: The Bid shall be evaluated against the following criteria:

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<sup>3</sup> If applicable.

**4.3.1.1** Completeness and formal compliance of the Price Quotation with all IFB provisions and Bidding Instructions.

**4.3.1.2** Evaluated Price (based on the Notional Quantities) offered for the requested CLINs in the Bidding Sheets.

**4.3.1.3** The Bid meets the requirement for Price Realism.

#### **4.3.2 Determination of Lowest Evaluated Priced Bid:**

**4.3.2.1** In order to determine the lowest evaluated price, the Purchaser will convert all prices quoted into Euro for purposes of comparison. The exchange rate to be utilised by the Purchaser will be the average of the official buying and selling rates of the European Central Bank at close of business on the last working day preceding the Bid Closing Date.

**4.3.2.2** All quantities included in the bidding sheets are for evaluation purposes only, no rights can be derived from them.

#### **4.3.3 Inconsistencies and Discrepancies in Bid Price Quotation**

**4.3.3.1** In case of inconsistencies, discrepancies and/or contradictory pricing information in the different parts of the Bid price submission and notwithstanding the possibility for the Purchaser, at its sole discretion to obtain clarification from the bidder, for the purpose of determining the total price of the Bid, the following order of precedence shall apply:

**4.3.3.2** PDF copy of the completed Bidding Sheets

**4.3.3.3** Microsoft Excel copy of the completed Bidding Sheets

#### **4.3.4 Basis of Price Comparison**

**4.3.4.1** The sum of the Total Evaluated Fixed Prices offered shall be compared on the basis of the prices offered converted to Euro as stated in paragraph 4.3.2 above.

**4.3.4.2** The Bid will be evaluated against the following criteria:

**4.3.4.2.1** The Bidder shall have furnished firm fixed unit prices for all items listed (including Options), with the sole exception of Schedule D, where the Bidder shall provide a fixed discount percentage over all the items in the Cisco GPL<sup>4</sup>, as explained in 5.4.1 in the detailed Bidding Instructions below.

**4.3.4.2.2** All pricing data, i.e., quantities, unit prices, shall be provided as reflected in the Bidding Sheets.

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<sup>4</sup> With Amendment 2 to this IFB it is clarified that the Cisco Global Price List (GPL) only refers to the Hardware sub-categories of the Cisco GPL. See section 5.4 of these Bidding Instructions.

- 4.3.4.2.3 Bid prices shall include all costs for items supplied, delivered, and supported.
- 4.3.4.2.4 The Bidder shall have provided accurate unit prices of each of the sub-items(s) he has added (if any).
- 4.3.4.2.5 The bidder shall have provided accurate unit price and total evaluated price for each line item.
- 4.3.4.2.6 The evaluated grand total shall be accurate.
- 4.3.4.2.7 The currency of Schedule shall be clearly indicated.
- 4.3.4.2.8 Bidders may quote in their own national currency or in EUR, the host nation currency, or they may submit bids in multiple currencies only in accordance with paragraph 3.3.6 above.
- 4.3.4.2.9 All prices shall be accurately entered into appropriate columns, and accurately totalled.
- 4.3.4.2.10 Bidders shall have indicated 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.
- 4.3.4.2.11 Price quotes for each individual item, and totalled prices shall be accurate and realistic, based on historic data, and/or market and competitive trends in the specified industrial sectors.

#### **4.4 PRICE REALISM**

- 4.4.1 Otherwise successful Bidders that submit a price quotation so low that it is not a realistic reflection of the objective cost of performance of the associated technical proposal may be considered by the Purchaser to have submitted an unrealistic offer and that offer may be determined to be non-compliant.
- 4.4.2 Indicators of an unrealistically low bid may be the following, amongst others:
  - 4.4.2.1 Costs that are considered to be too low for the amounts and/or types of material proposed, based on prevailing market prices for such material.
  - 4.4.2.2 Numerous Line Item prices for supplies and services that are provided at no cost or at nominal prices.
- 4.4.3 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:
  - 4.4.3.1 An error was made in the preparation of the Price Quotation. In such a case, the Bidder shall 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.

- 4.4.3.2** 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 shall 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** 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.
- 4.4.4** 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. If the Bidder responds on the basis of a) above and requests to withdraw from the competition, the Purchaser may, depending on the nature and gravity of the mistake, allow the Bidder to withdraw.
- 4.4.5** If the Purchaser accepts the Bidder's explanation of mistake in paragraph 4.4.3(a) and allows the Bidder to accept the Contract at the offered price, or the Purchaser accepts the Bidder's explanation pursuant to paragraph 4.4.3(c) above, the Bidder shall agree that the supporting pricing data submitted with its 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.
- 4.4.6** If the Bidder presents a convincing rationale pursuant to paragraph 4.4.3(b) 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 TECHNICAL CRITERIA**

- 4.5.1** As outlined in Paragraph 3.1.6.3, a Technical Proposal is only required in the event that a Bidder is unable to provide the items matching the specific requirement in the Schedule.

- 4.5.2** Upon determination of the lowest-priced Bid as described in Section 4.3 above, and in the event of a Technical Proposal provided as per Section 3.4, only the technical proposal of the apparent lowest priced bid shall be evaluated against the following criteria:
- 4.5.2.1** A list of the items required in the Schedule which are not to be provided.
  - 4.5.2.2** A list of the alternative items – with their description and OEM part number – to be replacing the items mentioned in 4.5.2.1 above.
  - 4.5.3** As noted in Paragraph 3.4.1 the evaluation of alternative items will be performed strictly by comparing the originally requested item as a comparative reference; only alternative items meeting or exceeding all specifications of the **Agency's baseline** item will be deemed compliant.

## **5. ANNEX A – BIDDING SHEETS**

### **A – 1 BIDDING SHEETS**

(see separate Excel file, “2\_IFB-CO-115125-e-FIT\_Book I-Annex A1-Bidding Sheets”)



**A – 2 INSTRUCTIONS FOR THE PREPARATION OF  
BIDDING SHEETS****5.1 GENERAL REQUIREMENTS**

- 5.1.1** Bidders are required to insert price and other information (as applicable) in all cells marked in YELLOW in the Bidding Sheets of the Schedules they are bidding on.
- 5.1.2** Bidders shall complete and submit the Bidding Sheets with their Price, or percentage if so requested, per CLIN.
- 5.1.3** The Bidder shall provide a Delivery Lead Time, which shall be understood to start from the date of reception of the Task Order.
- 5.1.4** The total price shall be indicated in the appropriate columns and in the currency quoted.
- 5.1.5** The total evaluated price shall be the price of the base Contract. Bidders shall note that any prospective contract will be for unit prices, but that the evaluation is based on the lowest total evaluated price. The prices entered on the Bidding Sheets shall reflect the total notional items provided. All quantities included in the bidding sheets are for evaluation purposes only.
- 5.1.6** If the price of a CLIN is expressed in different currencies, these shall be identified. The evaluation will be conducted by converting all prices to Euro by using the exchange rate of the last business day prior to bid closing date.
- 5.1.7** Prices shall not include any provision for taxes or duties for which the Purchaser is exempt.
- 5.1.8** Bidders shall not introduce any changes or deviations to the Bidding Sheets as provided by the Purchaser, unless otherwise specified.
- 5.1.9** Bidders are advised that formulae are designed to ease evaluation of the bidders proposal have been inserted in the electronic copies of the Bidding Sheets. Notwithstanding this the Bidder remains responsible for ensuring that their figures are correctly calculated and should not rely on the accuracy of the formulae electronic copies of the Bidding Sheets.
- 5.1.10** 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. Any discounted or reduced prices offered by the bidder shall be traceable to a CLIN or CLINs at the lowest level. Prices and detail of the traceability of application of the discount shall be clearly identified in the supporting detail sheets and applied at the unit price level.

**5.2 STRUCTURE OF BIDDING SHEETS.**

- 5.2.1** The Bidding Sheets provided in MS Office Excel format are organised according to the following structure:
- 5.2.1.1.** General Instructions for completing the Bidding sheets
  - 5.2.1.2.** Schedules A, B, C and D
- 5.2.2** The Bidding Sheets corresponds to the Schedule of Supplies and Services of the Prospective Contract. Each Schedule included in the competition is represented by a single Bidding Sheet showing the Contract Line Items (CLINs) included within the scope of that Schedule (Detailed bidding sheet tabs) and a detailed cost breakdown attached to each schedule.
- 5.2.3** Bidders shall provide Firm Fixed Unit Prices – or percentages – as requested for all required items in accordance with the format set forth in the Bidding Sheets, and as per the Instructions established in this Annex.
- 5.2.4** Bidders shall make sure that they have filled all delivery lead times in the allocated cells.
- 5.2.5** Bidders shall note that any prospective contract will be for unit prices. All quantities included in the bidding sheets are for evaluation purposes only.

**5.3 SCHEDULES A, B, AND C:**

- 5.3.1** Bidders shall fill in the CLIN Bidding Sheet for these Schedules based on the information provided. This includes the unit prices, delivery lead times, Engineering Services, Volume Discount, Shipment Costs, and Warranty Extensions. Both the Shipment Costs and the Warranty Extensions are to be percentages over the unit price per applicable CLIN.
- 5.3.2** The prices shall be intended as the comprehensive total price offered for the fulfilment of all requirements as expressed in the IFB documentation including but not limited to those expressed in the SOW.
- 5.3.3** When completing the Bidding Sheets, a unit price for each price band needs to be supplied on each CLIN. Prices should not be grouped. The Bidder shall provide fixed unit prices, for all proposed CLINs provided for in this IFB. The Bidder may provide the same price for different price bands, if it chooses to do so
- 5.3.4** The quantities and orders provided in the document are notional and for evaluation purposes only, yet attempt to reflect the total items required to meet the annual contractual requirements. No rights may be derived from these notional quantities of items and orders, as Purchaser requirements may vary throughout the period of performance of the Contract.

**5.3.5** The total evaluated price shall be indicated in the appropriate columns and in the currency quoted. The accuracy of the inputs of the Bidding Sheets is the responsibility of the Bidder. The Purchaser may resolve ambiguous computation of prices in its favour.

**5.4 SCHEDULE D:**

**5.4.1** The Scope of Schedule D consists of the Hardware sub-categories of the Cisco Global Price List (GPL) as maintained by Cisco. Bidders shall provide a firm and fixed discount percentage over this portion of the GPL. The discount percentage shall apply to all hardware within the GPL, throughout the period of performance of the Contract.

**5.4.2** Additionally, Bidders shall provide delivery lead times, Engineering Services, Shipment Costs, and Warranty Extensions. Both the Shipment Costs and the Warranty Extensions are to be percentages over the unit price per applicable CLIN.

**5.4.3** The Scope of Schedule D is subject to daily amendments, it is understood that the percentages and prices provided by the Bidders are to remain in place for the entire period of performance of the Contract.

**6. ANNEX B - CERTIFICATES**

**ANNEX B-1**

**CERTIFICATE OF LEGAL NAME OF BIDDER**

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

FULL NAME OF CORPORATION: \_\_\_\_\_

DIVISION (IF APPLICABLE): \_\_\_\_\_

SUB DIVISION (IF APPLICABLE): \_\_\_\_\_

OFFICIAL MAILING ADDRESS \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

E-MAIL ADDRESS \_\_\_\_\_

FAX NO: \_\_\_\_\_

BOA NO: \_\_\_\_\_

POINT OF CONTACT:  
REGARDING THIS BID: NAME: \_\_\_\_\_

POSITION: \_\_\_\_\_

TELEPHONE: \_\_\_\_\_

E-MAIL ADDRESS: \_\_\_\_\_

ALTERNATIVE POINT OF CONTACT:  
NAME: \_\_\_\_\_

POSITION: \_\_\_\_\_

TELEPHONE: \_\_\_\_\_

E-MAIL ADDRESS: \_\_\_\_\_

\_\_\_\_\_  
DATE

\_\_\_\_\_  
SIGNATURE OF AUTHORISED REPRESENTATIVE

\_\_\_\_\_  
PRINTED NAME

\_\_\_\_\_  
TITLE

**ANNEX B-2**

**CERTIFICATE OF INDEPENDENT DETERMINATION**

1. Each Bidder shall certify that in connection with this procurement:
  - a. This Bid has been arrived at independently, without consultation, communication or agreement, for the purpose of restricting competition, with any other Bidder or with any competitor;
  - b. The contents of this bid have not been knowingly disclosed by the Bidder and will not knowingly be disclosed by the Bidder prior to award, directly or indirectly to any other Bidder or to any competitor, and
  - c. No attempt has been made, or will be made by the Bidder to induce any other person or firm to submit, or not to submit, a Bid for the purpose of restricting competition.
  
2. Each person signing this Bid shall also certify that:
  - a. He is the person in the Bidder's organisation responsible within that organisation for the decision as to the bid and that he has not participated and will not participate in any action contrary to 1(a) through 1(c) above, or
  - b. (i) He is not the person in the Bidder's organisation responsible within that organisation for the bid but that he has been authorised in writing to act as agent for the persons responsible for such a decision in certifying that such persons have not participated, and will not participate in any action contrary to 1(a) through 1(c) above, and as their agent does hereby so certify, and  
 (ii) He has not participated and will not participate in any action contrary to 1(a) through 1(c) above.

.....  
Date

.....  
Signature of Authorised Representative

.....  
Printed Name and Title

.....  
Company

**ANNEX B-3**

**CERTIFICATE OF BID VALIDITY**

I, the undersigned, as an authorised representative of the firm submitting this bid, do hereby certify that the pricing and all other aspects of our Bid will remain valid for a period of six (6) months from the Bid Closing Date of this Invitation for Bids.

.....  
Date

.....  
Signature of Authorised Representative

.....  
Printed Name and Title

.....  
Company

**ANNEX B-4**

**CERTIFICATE OF UNDERSTANDING**

I certify that

.....  
.....(*Company Name*) has read and fully understands the requirements of this Invitation for Bids (IFB) and that the Bid recognises these requirements in total.

I also certify to the best of my expert knowledge that this Bid is within the "state of art" boundaries as they exist at the time of bidding for this project.

.....  
Date

.....  
Signature of Authorised Representative

.....  
Printed Name and Title

.....  
Company



**ANNEX B-5**

**CERTIFICATE OF EXCLUSION OF TAXES, DUTIES AND CHARGES**

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

.....  
Date

.....  
Signature of Authorised Representative

.....  
Printed Name and Title

.....  
Company

**ANNEX B-6**

**ACKNOWLEDGEMENT OF RECEIPT OF IFB AMENDMENTS**

I confirm that the following Amendments to Invitation for Bids IFB-CO-115125-e-FIT have been received and the Bid as submitted reflects the content of such Amendments:

Amendment Number	Date Issued	Date of Receipt

.....  
Date

.....  
Signature of Authorised Representative

.....  
Printed Name and Title

.....  
Company

**ANNEX B-7**

**DISCLOSURE OF REQUIREMENTS FOR NCIA EXECUTION OF  
SUPPLEMENTAL AGREEMENTS**

I, the undersigned, as an authorised representative of .....(*Company Name*), certify the following statement:

1. All supplemental agreements, defined as agreements, documents and/or permissions outside the body of the Contract but required by my Government, and the governments of my sub-Contractors, to be executed by the NCIA as a condition of my firm’s performance of the Contract, have been identified, as part of the Bid.
2. These supplemental agreements are listed as follows:
  - 2.1. *[insert the list, if applicable]*
3. Examples of the terms and conditions of these agreements are attached hereto. 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, see.....(*complete, if any*). 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.
4. 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), see .....(*complete, if any*).
5. We recognise that additional supplemental agreements, documents and permissions presented as a condition of Contract performance or MOU signature after our firm would be selected as the successful Bidder may be cause for the NCIA to determine the submitted bid to be non-compliant with the requirements of the IFB;
6. 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 and Title
	..... Company

**ANNEX B-8**

**CERTIFICATION OF NATO MEMBER COUNTRY ORIGIN OF DELIVERED  
EQUIPMENT, SERVICES, MATERIALS AND INTELLECTUAL PROPERTY  
RIGHTS**

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

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

.....  
Date

.....  
Signature of Authorised Representative

.....  
Printed Name and Title

.....  
Company

\*This definition purposely excludes components and/or parts (as defined in AcodP-1), which are not subject to this certification.

**ANNEX B-9**

**COMPREHENSION AND ACCEPTANCE OF CONTRACT SPECIAL PROVISIONS  
AND GENERAL PROVISIONS**

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

.....  
Date

.....  
Signature of Authorised Representative

.....  
Printed Name and Title

.....  
Company

**ANNEX B-10**

**LIST OF PROSPECTIVE SUB-CONTRACTORS/CONSORTIUM MEMBERS**

Name and Address of Sub-Contractor, incl. country of origin/registration	Primary Location of Work	Items/Services to be Provided	Estimated Value of Sub-Contract

If no sub-Contractors/consortium members are involved, state this here:

.....

.....

.....

.

.....

.....  
Date

.....  
Signature of Authorised Representative

.....  
Printed Name and Title

.....  
Company

**ANNEX B-11**

**CERTIFICATE OF AQAP 2110 OR ISO 9001:2008 COMPLIANCE**

I hereby certify that ..... (*Company Name*) is fully compliant with the AQAP 2110 or ISO 9001:2008 Quality Assurance Standards and Procedures and is currently so certified.

A copy of the certification is attached herewith.

.....  
Date

.....  
Signature of Authorised Representative

.....  
Printed Name and Title

.....  
Company

**ANNEX B-12**

**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:

- Have 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 below):

Employee Name	Former NCIA 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 prohibition covers negotiations, representational communications and/or advisory activities.

Date: .....

Signature: .....

Name & Title: .....

Company: .....

Bid Reference: .....



**ANNEX B-13**

**Supply Chain Security Self-Attestation Statement**

[Name Contractor]

I hereby as [Contractor] affirm that the security of the supply chain for Commercial off the Shelf communication and information systems products listed in the Schedule of Supplies and Services of the contract in question has been assessed and found compliant against the Statement of Work requirements of the contract in question.

I endorse this supply chain security statement for the products within the scope of this contract.

I can supply supporting evidence if required.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Authorised Representative

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Company

## **7. ANNEX C - EXCERPT OF NCI AGENCY AD. 05.00, CODE OF CONDUCT DATED MAY 2017.**

### **Article 14 PROCUREMENT AND CONTRACTORS**

- 14.1 NCI Agency Personnel are required to maintain unquestionable integrity and impartiality in relation to procurements initiated by the NCI Agency.
- 14.2 NCI Agency Personnel shall not disclose any proprietary or contract related information regarding procurement directly or indirectly to any person other than a person authorized by the NCI Agency to receive such information. NCI Agency Personnel shall not disclose any documentation related to a procurement action to any third party without a need to know (e.g., draft statement of work, statement of requirements) unless this is expressly provided under NATO Procurement Regulations or authorized in writing by the Director of Acquisition. During an on-going selection, NCI Agency Personnel shall not disclose any information on the selection procedure unless authorized by the Chairman of the award committee/board. The NCI Agency Personnel concerned will ensure that proper access controls are put in place to prevent disclosure of procurement information that has not yet been authorized for release for outside distribution, including draft statements of work and requirement documentations.
- 14.3 NCI Agency Personnel will not participate in a source selection if an offer has been provided by a friend, family member, a relative, or by a business concern owned, substantially owned, or controlled by him/her or by a friend, family member or a relative. NCI Agency Personnel appointed as part of an evaluation shall report such links to the Director of Acquisition immediately upon becoming aware of it.
- 14.4 Contractors and consultants shall not be allowed to participate in the drafting of the statement of work or in the source selection process unless they and their company/employer will be excluded from competition of the related contract. The same will apply to contractors and consultants involved in the definition and development of requirements.
- 14.5 Contractors will be given specific and coherent statements of work, providing precise explanation of how she/he is going to be employed. Tasks to be performed and minimum qualifications are to be well defined from the start. In addition, supervisors will ensure that contractors do not occupy managerial positions within the Agency.
- 14.6 NCI Agency Personnel shall not enter into authorized commitments in the name of NCI Agency or NATO unless specifically authorized. NCI Agency Personnel must abstain from making promises or commitment to award or amend a contract or otherwise create the appearance of a commitment from the NCI Agency unless properly authorized by the NCI Agency.

- 14.7 NCI Agency Personnel shall not endorse directly or indirectly products from industry. Therefore, NCI Agency Personnel shall not name or make statements endorsing or appearing to endorse products of specific companies.
- 14.8 Industry partners will need to abide with the post-employment measures under this Directive upon submission of their bids / proposals to the NCI Agency. As part of the selection process, industry will be requested to agree with an ethical statement.

## **15 INDUSTRY INITIATIVES**

- 15.1 Industry initiatives may include loans, displays, tests or evaluation of equipment and software, requesting NCI Agency speakers at industry gatherings and conferences, inviting speakers from industry to NCI Agency events, consultancy or studies of technical or organizational issues, etc. These initiatives are usually at no cost to the NCI Agency and take place at a pre-contractual phase or before the development of requirements and specifications. While there are benefits associated with the early involvement of industry in the definition of requirements and specifications, this also raises the potential for unfair treatment of potential competitors.
- 15.2 Industry initiatives which go beyond routine interaction in connection with on-going contracts must be reported to and coordinated by the NCI Agency Acquisition Directorate for approval. Industry initiatives shall be properly documented and governed by written agreements between the NCI Agency and the company concerned where relevant. Such agreements may contain provisions describing the nature of the initiative, the non-disclosure of NCI Agency/NATO information, NCI Agency ownership of any resulting work, the NCI Agency's right to release such work product to future competitors for any follow-on competition or contract, the requirement that any studies must provide non-proprietary solutions and/or an acknowledgement that the participating companies will not receive any preferential treatment in the contracting process.
- 15.3 Any authorized industry initiatives must be conducted in such a way that it does not confer an unfair advantage to the industry concerned or create competitive hurdles for potential competitors.

## **16 POST EMPLOYMENT MEASURES**

- 16.1 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.
- 16.2 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.

- 16.3 In addition to Section 17.2 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 ASB.
- 16.4 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.
- 16.5 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.
- 16.6 NCI Agency Personnel leaving the Agency shall sign a statement that they are aware of the post-employment measures set out in this Directive.
- 16.7 The post-employment measures set out in this Directive shall be reflected in the NCI Agency procurement documents, such as IFBs, and contract provisions.

**8. ANNEX D – CLARIFICATION REQUESTS FORMS**

INSERT COMPANY NAME HERE:

INSERT SUBMISSION DATE HERE:

ADMINISTRATION or CONTRACTING					
Serial Nr	IFB Book	IFB Section Ref.	QUESTION	ANSWER	Status
A.1					
A.2					
A.3					

INSERT COMPANY NAME HERE:

INSERT SUBMISSION DATE HERE:

PRICE						
Serial Nr	IFB Book	IFB Ref.	Section	QUESTION	ANSWER	Status
A.1						
A.2						
A.3						

INSERT COMPANY NAME HERE:

INSERT SUBMISSION DATE HERE:

<b>TECHNICAL</b>					
<b>Serial Nr</b>	<b>IFB Book</b>	<b>IFB Section Ref.</b>	<b>QUESTION</b>	<b>ANSWER</b>	<b>Status</b>
<b>A.1</b>					
<b>A.2</b>					
<b>A.3</b>					

## Bidding Sheets Instructions

### INTRODUCTION & IMPORTANT NOTES

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

Bidders are **REQUIRED** to complete all input cells that are colour coded **YELLOW in each of the Schedules being bid**.

Any formulas provided in these bidding sheets are provided only to assist the bidder. Any changes in formula can be made at the bidder's discretion, as long as the detailed costs are clear, traceable, and accurate as required. **Ultimately the bidder is responsible for ALL values, formulas and calculations** with the bidding sheets that are submitted to the Agency.

Formulas should NOT be altered by the bidder. They are put in place for evaluation purposes as the ensuing contracts will be for firm fixed unit prices. To assist the Agency in evaluating the bids, we have included estimates for orders, quantities and spreads. These values will be used to evaluate the unit prices and percentages bid by each bidder and determine the winner of the competition for each Schedule. These estimates are notional only, and no rights can be derived from them.

Note that each Schedule should be bid in a single currency. Bidders can bid a different currency for each schedule if they so desire. However, currencies should either be the bidder's home currency or that of the Agency, the Euro.

**The 3 questions inserted with Amendment 2 of this IFB are to be filled in using the drop-down options provided. In the event an alternative item is proposed in response to Q3, the price of the alternative shall be provided instead of the original CLIN item.**

Section D of each Schedule is the Task Order Volume Discount. The discount bands here are identified in Euros and will remain in Euros even if the bidder elects to bid in another currency. For evaluation purposes, all bids will be converted into Euros in accordance with the instructions found in the Invitation For Bid.

Annex A of the Invitation for Bid includes additional instructions related to the bidding sheets.











ID	Description	Category	Quantity	Unit Price	Total Price	Notes
10	PIMIC					
10.1	HP 3PAR StoreServ 8450 4N, 64x3.84TB SSD, 245TB	B.10	1	-	-	1
10.2	HP StoreServ 8200 2N, 12x1.92TB SSD, 23TB	B.10.2	1	-	-	1
10.3	Cabling and Spares	B.10.3	1	-	-	1
10.4	Veeam Backup and Replication Software	B.10.4	1	-	-	1
10.5	Veem Availability Suite Software	B.10.5	1	-	-	1
10.6	GRID Graphics Licenses	B.10.6	1	-	-	1
10.7	GRID Graphics Support	B.10.7	1	-	-	1
10.8	GRID Installation	B.10.8	1	-	-	1
11	Palo Alto Networks PA-3260 with redundant AC power supplies	B.11	1	-	-	1
12	Cohesity cluster of 4 x DL380-96TB	B.12	1	-	-	1
13	Qumulo cluster of 4 x Apollo4200-Gen10-90TB with 3y subscription based licenses	B.13	1	-	-	1
14	Scality cluster of 3 x Apollo4200-Gen10-160TB with Scality Hardware Lifetime Licenses	B.14	1	-	-	1
15	Network Equipment Cabinet	B.15	1	1	10	13
16	Server Equipment Cabinet	B.16	1	1	8	32
16.1	Side Panel	B.16.1	1	1	12	15
16.2	Divider Panel	B.16.2	1	1	12	15
16.3	1U Blanking Panels	B.16.3	1	1	12	15
16.4	2U Blanking Panels	B.16.4	1	1	12	15
16.5	6U Blanking Panels	B.16.5	1	1	12	15
17	Cold Aisle Containment System (7 Aisles) 47U	B.17	1	-	-	1
18	Managed Rack Power Distribution Unit (PDU)	B.18	1	1	15	35 75 150 280
19	Cableduct 200x146x598	B.19	1	1	10	20 32
20	Cableduct 200x146x798	B.20	1	-	-	3
21	End piece cableduct 200x146	B.21	1	1	6	7
22	End User Access Switch (Copper)	B.22	1	1	6	29
23	End User Access Switch (Fibre)	B.23	1	1	15	45
24	OOB Management Switch (48 Port)	B.24	1	1	6	7
25	OOB Management Switch (24 Port)	B.25	1	1	10	13
26	DC Spine Switch	B.26	1	1	6	7
27	Core Aggregation TOR Switch	B.27	1	1	10	35 50
28	SFP Transceiver	B.28				
28.1	SFP Transceiver 10GbE Single Mode	B.28.1	1	1	15	30 50
28.2	SFP Transceiver 10GbE Multi Mode	B.28.2	1	1	15	30 50 100
28.3	SFP Transceiver 1GbE Multi Mode	B.28.3	1	1	15	45 95 1,400 1,560
28.4	SFP Transceiver 100Mb Multi Mode	B.28.4	1	1	15	30 50 200 300
29	Fibre Patch Cable	B.29				
29.1	Fibre Patch Cable - OS2-9/125 SM LC-LC Patch Cable - 1M	B.29.1	1	1	1	5 15 30 50 100
29.2	Fibre Patch Cable - OS2-9/125 SM LC-LC Patch Cable - 2M	B.29.2	-	-	-	-
29.3	Fibre Patch Cable - OS2-9/125 SM LC-LC Patch Cable - 3M	B.29.3	-	-	-	-
29.4	Fibre Patch Cable - OS2-9/125 SM LC-LC Patch Cable - 5M	B.29.4	-	-	-	-
29.5	Fibre Patch Cable - OS2-9/125 SM LC-LC Patch Cable - 10M	B.29.5	1	1	1	5 15 30 50 100
29.6	Fibre Patch Cable - OM4-50/125 MM LC-LC Patch Cable - 1M	B.29.6	1	1	1	1 5 15 30 50 100 200
29.7	Fibre Patch Cable - OM4-50/125 MM LC-LC Patch Cable - 2M	B.29.7	1	1	1	1 5 15 30 50 100 200
29.8	Fibre Patch Cable - OM4-50/125 MM LC-LC Patch Cable - 3M	B.29.8	1	1	1	1 5 15 30 50 100 200
29.9	Fibre Patch Cable - OM4-50/125 MM LC-LC Patch Cable - 5M	B.29.9	-	-	-	-
29.10	Fibre Patch Cable - OM4-50/125 MM LC-LC Patch Cable - 10M	B.29.10	-	-	-	-
29.11	Fibre Optic Cable - LC to LC - OS2 - 2 meters - Yellow	B.29.11	-	-	-	-
29.12	Fibre Optic Cable - LC to LC - OS2 - 3 meters - Yellow	B.29.12	-	-	-	-
29.13	Fibre Optic Cable - LC to LC - OS2 - 5 meters - Yellow	B.29.13	-	-	-	-
29.14	Fibre Optic Cable - LC to LC - OM4 - 5 meters - Purple	B.29.14	-	-	-	-
29.15	Fibre Optic Cable - LC to LC - OM4 - 10 meters - Purple	B.29.15	-	-	-	-
30	Copper Patch Cable	B.30				
30.1	Copper Patch Cable - CAT6A S-FTM Patch Cable - 0.5M	B.30.1	1	1	1	5 15 30 50 100 200
30.2	Copper Patch Cable - CAT6A S-FTM Patch Cable - 1M	B.30.2	1	1	1	5 15 30 50 100 200
30.3	Copper Patch Cable - CAT6A S-FTM Patch Cable - 2M	B.30.3	1	1	1	5 15 30 50 100 200
30.4	Copper Patch Cable - CAT6A S-FTM Patch Cable - 3M	B.30.4	1	1	1	5 15 30 50 100 200
30.5	Copper Patch Cable - CAT6A SFTP patch cables black (NU) 1M	B.30.5	-	-	-	-
30.6	Copper Patch Cable - CAT6A SFTP patch cables black (NU) 3M	B.30.6	-	-	-	-
30.7	Copper Patch Cable - CAT6A SFTP patch cables black (NU) 5M	B.30.7	-	-	-	-
30.8	Copper Patch Cable - CAT6A SFTP patch cables black (NU) 7.5M	B.30.8	-	-	-	-
30.9	Copper Patch Cable - CAT6A SFTP patch cables black (NU) 10M	B.30.9	-	-	-	-
30.10	Network cable Black, 15M CAT 6A S / FTP (PIMF) LSZH	B.30.10	-	-	-	-
30.11	Network cable Black 20M CAT 6A S / FTP (PIMF) LSZH	B.30.11	-	-	-	-
31	Dell EMC NX3240	B.31	1	-	-	4
32	1000 BASE-T SFP Copper RJ-45 100m Transceiver Module	B.32	1	1	1	5 15 30 50 100 200
33	HPE 3PAR 8440 4N 24x3.84TB	B.33	1	-	-	1
34	VALUE DisplayPort Cable DP Male - DVI (24+1) Male, Black, 1.0 m	B.34	1	1	1	5 15 45 95 540 700
35	100BaseFX(2km)1310nm(Multi-Mode Fibre (Optical Fiber)	B.35	1	1	1	5 15 45 95 540 700
36	VALUE F.O. Cable 50/125µm, LC/SC, OM3, Turquoise, 2,0 m	B.36	1	1	1	5 15 45 95 540 700
37	Stacking Cable, for Dell Networking N2000/N3000/S3100 series switches(no cross-series stacking) 0.5m	B.37	1	1	1	5 15 30
38	Dell Networking, Transceiver, SFP, 1000BASE-T - Customer Kit	B.38	1	1	1	5 15 30 50 200 300
39	CORNING-C E797902QNZ0001 2F EDGE UNIBOOT MM 50/125 OM4 LC/LC DUPX REVERSE POLAR 1M E797902QNZ0001M	B.39	1	1	1	5 15 30 50 200 300
40	VALUE Patchkabel Kat. 6A S/FTP (PIMF), black, 1,0 m	B.40	1	1	1	5 15 30 50 200 300
41	DK Cable channel, 38 HE TS IT / TE 8000	B.41	1	1	1	6 20











D DISCOUNT		Task Order Discount Band in Euros	From To	-	50,001	100,001	500,001	1,000,001
D.1	Volume discount to be applied to each task order as part of this contract.			50,000	100,000	500,000	1,000,000	Above
S SERVICES		Engineering Services	Installation & Commissioning Professional Services (On-Site)*	Daily Rate				
S.1			3.10					
Integrated Logistics Support		PHS&T to NATO/ Customer Sites**	Shipment Cost To:	No. America	Turkey	Europe	Percentage over the CLIN price	
S.2		3						
Warranty Extensions		Warranty Extension*** (from 1 year to 3-years)	Fixed Percentage to be applied to	Percentage over the CLIN price				
S.3		3.11						
<b>Total Evaluated Price</b>								

*	Optional installation services will be added to the TO only if requested. The price in CLIN S.1 shall include all installation activities including travel, material, per diem and other costs.
**	Shipment costs shall be calculated based on the percentage provided in CLIN S.2 and the price of the order, and can vary by region.
***	Unit price of each product shall include the standard warranty applicable for that product. This standard warranty shall be one year for all products, except for those products that are specified as 3-year or 5-year warranty in their respective schedule specification. For those products with 3-years or 5-years warranty, the unit price shall include the specified warranty.  Warranty extension price shall be calculated based on the percentage provided in CLIN S.3 and the unit price for the specific item. When this CLIN is added in a TO, the CLIN for the specific item should be mentioned in parentheses. <b>This warranty extension CLIN will only be applicable for items with one year warranty. Items that are specified as 3-years or 5-years warranty in their respective schedules will not have a warranty extension CLIN.</b>
****	Each Unit Price shall have the following factored in: (a) G&A, (b) Administrative Cost per paragraphs 4.2.1 and 4.2.2 of the SOW, and (c) Profit

Schedule C Instructions:

- The Bidder is expected to fill in all the yellow highlighted areas.
- The model will automatically calculate the evaluated prices on the right, for evaluation comparison purposes only.
- The Total Evaluated Price will consist of the amounts in columns W103, W112, W115, and W118.
- The Bidder shall provide its prices based on equipment unit prices without PHS&T, as that is separately provided in row 115.

Quantity of Order per Discount Band in Euros					Average Value of Task Order Per Band in Euros				
-	50,001	100,001	500,001	1,000,001	-	50,001	100,001	500,001	1,000,001
50,000	100,000	500,000	1,000,000	Above	50,000	100,000	500,000	1,000,000	Above
8	1	3	1	1	15,000	75,000	150,000	600,000	1,150,000
<b>Subtotal Evaluated Hardware Price after Task Order Discount</b>									
<b>Assumptions for Delivery and Warranty</b>									
					Delivered to:		Include		
					No. America	Turkey	Europe	Warranty	
					20%	5%	75%	5%	
					-	-	-	-	
<b>Engineering Services</b>									
Installation & Commissioning Professional Services (On-Site)*									
									Hours
									100
<b>Integrated Logistics Support</b>									
					Shipment Cost To:	No. America	Turkey	Europe	
					PHS&T to NATO/ Customer Sites**	-	-	-	
<b>Warranty Extensions</b>									
					Warranty Extension				
					Warranty Extension*** (from 1 year to 3-years)				
<b>Total Evaluated Price</b>									

Book II - Part I - Schedule of Supplies and Services									
SCHEDULE D - CISCO <b>HARDWARE</b> EQUIPMENT									
CLIN	Item					Discount from Cisco Global Price List (GPL)	Delivery Lead Time (After Receipt of Order)		
	CISCO GPL - <b>HARDWARE</b>					Currency	Euro (EUR)		
1	Cisco Global Price List for Hardware								
D	DISCOUNT								
	Task Order Volume Discount	Task Order Discount Band in Euros	From To	-	50,001	100,001	500,001	1,000,001	
D.1	Volume discount to be applied to each task order as part of this contract.			50,000	100,000	500,000	1,000,000	Above	
S	SERVICES								
	Engineering Services	SOW				Euro (EUR)			
S.1	Installation & Commissioning Professional Services (On-Site)*	3.10				Daily Rate			
	Integrated Logistics Support					Shipment Cost To:	Europe	No. America	Turkey
S.2	PHS&T to NATO/ Customer Sites**	3				Percentage over the Discounted GPL price			
	Warranty Extensions						Fixed Percentage to be applied to Unit CLIN Price (%)		
S.3	Warranty Extension*** (from 1 year to 3-years)	3.11				Percentage over the Discounted GPL price			
<b>Total Evaluated Price</b>									

Notional Values for Evaluation Purposes Only											
									Annual Amount Ordered at GPL Prices in EUR	Evaluated Price	
										Euro (EUR)	
										-	
										-	
Subtotal Evaluated Hardware Price											
Quantity of Order per Discount Band in Euros					Average Value of Task Order Per Band in Euros						
-	50,001	100,001	500,001	1,000,001	-	50,001	100,001	500,001	1,000,001		
50,000	100,000	500,000	1,000,000	Above	50,000	100,000	500,000	1,000,000	Above		
2	2	2	1	1	25,000	75,000	250,000	600,000	1,250,000	-	
										-	
Subtotal Evaluated Hardware Price after Task Order Discount											
Assumptions for Delivery and Warranty											
				Delivered to:			Include Warranty				
No. America	Turkey	Europe		20%	5%	75%		5%			
-	-	-		-	-	-		-			
Engineering Services											
Installation & Commissioning Professional Services (On-Site)*									Hours		
									100	-	
Shipment Cost To:											
				Europe	No. America	Turkey					
PHS&T to NATO/ Customer Sites**				-	-	-				-	
Warranty Extensions											
Warranty Extension*** (from 1 year to 3-years)					Warranty Extension						
										-	
										-	
										-	
Total Evaluated Price											

*	Optional installation services will be added to the TO only if requested. The price in CLIN S.1 shall include all installation activities including travel, material, per diem and other costs.
**	Shipment costs shall be calculated based on the percentage provided in CLIN S.2 and the price of the order, and can vary by region.
***	Unit price of each product shall include the standard warranty applicable for that product. This standard warranty shall be one year for all products, except for those products that are specified as 3-year or 5-year warranty in the Cisco GPL. For those products with 3-years or 5-years warranty, the unit price shall include the specified warranty.  Warranty extension price shall be calculated based on the percentage provided in CLIN S.3 and the unit price for the specific item. When this CLIN is added in a TO, the CLIN for the specific item should be mentioned in parentheses.

Schedule D Instructions:

- The Bidder is expected to fill in all the yellow highlighted areas.
- The model will automatically calculate the evaluated prices on the right, for evaluation comparison purposes only.
- The Total Evaluated Price will consist of the amounts in columns U14, U23, U26, and U29.
- The Bidder shall provide its prices based on equipment unit prices without PHS&T, as that is separately provided in row 26.

**NATO Communications and Information Agency**



**IFB-CO-115125-e-FIT**

- Provision of -

**COTS IT  
HARDWARE AND ASSOCIATED SUPPORT**

**Contract Special Provisions**

Book II - Part II

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## **PART II - CONTRACT SPECIAL PROVISIONS**

### **1. Order of Precedence**

- 1.1. In the event of any inconsistency in language, terms or conditions of the various parts of this Contract, precedence will be given in the following order:
  - 1.1.1. The Contract Signature Page (Basic plus any Amendment)
  - 1.1.2. Issued Task Order(s);
  - 1.1.3. Part I – The Schedule of Supplies and Services;
  - 1.1.4. Part II – The Contract Special Provisions;
  - 1.1.5. Part III – The Contract General Provisions;
  - 1.1.6. Part IV – The Statement of Work and its Annexes;
  - 1.1.7. The Contractor(s)' proposal (Technical Proposal and Price Quotation) dated [to be inserted at contract award] and any clarifications thereto, incorporated herein by reference.

### **2. Scope of Work**

- 2.1. The purpose of this Contract is to create a Framework to enable frequent and swift transactions of specified hardware and associated support from a Product Catalogue from which the Purchaser may order quantities for delivery to different NATO sites and/or NATO Nations.
- 2.2. In order to fulfil that purpose the Contractor shall deliver, in accordance with the contract requirements, and against the prices specified in the Contract Schedule of Supplies and Services (SSS), the items or services identified in Task Orders (TOs, or Orders) issued from time to time by the Purchaser, in the manner and at the time and location specified in the Order.
- 2.3. The specifications of the hardware equipment to be delivered under this contract are laid out in Annex A to the Statement of Work (SOW). The detailed requirements of associated warranty and support are provided in Section 3 of the SOW.

### **3. Contract Type**

- 3.1. This Framework Contract is an Indefinite Delivery, Indefinite Quantity (IDIQ) type contract for COTS IT procurement with fixed prices for hardware equipment and associated support is duly named e-FIT. The Contract has no intrinsic monetary value. The Agency will place TOs against this Framework Contract when requirements are identified and funding is available. The Contract includes five (5) price-bands with prices linked to different quantity ranges per Contract Line Item Number (CLIN), as elaborated in the "Price" Clause of these Special Provisions.
- 3.2. Each Task Order will have a monetary obligation and a detailed CLIN list with

corresponding Statement of Work specifications for the Contractor to perform that is within the general scope of this Contract. This Contract will come into effect with the placing of the first Order which will constitute the initial obligation.

- 3.3. The Purchaser regards this Contract to be a 'preferred vehicle' for obtaining the equipment and services specified in the Statement of Work, where the Purchaser is charged by NATO to satisfy the requirement. The Purchaser may decide to solicit alternative sources if that is deemed more favourable to the Purchaser.
- 3.4. The Purchaser assumes no liability for costs incurred by the Contractor in excess of the stated Firm Fixed Task Order Prices.

#### **4. Purchaser Obligations and Limitations**

- 4.1. The Purchaser's sole obligation under this contract is limited to the issuance of the initial Order activating the Contract, of which there is no minimum value threshold.
- 4.2. This IDIQ contract is subject to both time and value limitations. The Purchaser is not to issue any order beyond the period of performance of this IDIQ contract as per 4.3 below, or the Maximum Total Value of 6,000,000 EUR, whichever comes first.
- 4.3. The Contract is available for the placement of TOs against the SSS for three (3) years from Effective Date of Contract (EDC).
- 4.4. The Period of Performance of the Contract may be extended by the exercise of options in accordance with the "Options" Clause of these Special Provisions.

#### **5. Price**

- 5.1. The unit prices in the SSS are valid for any quantity of hardware and associated support ordered under the Contract and the relevant TOs.
- 5.2. The unit prices in the SSS are valid for the duration of the Contract, including option periods detailed in the "Options" Clause of these Special Provisions.
- 5.3. The unit prices per CLIN are subject to price-bands linked to different quantity ranges. The applicable range for every CLIN is determined by the quantity of that CLIN required per TO. The ranges and their associated prices are listed in the SSS, with larger price bands corresponding to lower unit costs.
- 5.4. For any new or replacement items to be added to the Product Catalogue, the unit prices will be proposed by the Contractor via a Request For Change (RFC) form, following the process defined in the "Changes" Clause of these Special Provisions. Should the Purchaser decide that the proposed item(s) be included in the Contract, an equitable price adjustment will be negotiated based on fair

and reasonable pricing, and the proposed item(s) shall be added to the Contract by bilateral modification as per the "Changes" Clause of these Special Provisions.

- 5.5. Additionally, unit prices for items replaced due to obsolescence are determined following the process described in the "Obsolescence Replacement" Clause of these Special Provisions.

## **6. Task Orders and Ordering**

- 6.1. Task Orders (TO's, or Order) will be issued in writing by the Purchaser and signed by the Purchaser's Contracting Authority. TO's are instruments to initiate Contractor activities and obligate funding to the Contract.

- 6.2. The Purchaser will initiate the ordering process by issuing a TO detailing the following:

- 6.2.1. Order Number;
- 6.2.2. Effective Date of the Order;
- 6.2.3. Total quantities of equipment or services required by CLIN;
- 6.2.4. Statement of Work reference;
- 6.2.5. Schedule and place of delivery and performance;
- 6.2.6. Shipping and transportation;
- 6.2.7. Total Monetary Value of the Order;

- 6.3. For the purpose of this Contract, an obligation to deliver as per the TO is deemed to exist for the Contractor upon signature by the Purchaser. Counter-signature by the Contractor is not required for any TO under this Contract.

- 6.4. A TO is understood to have been received within 24 hours if it is a business day, or the first day after a non-business day.

- 6.5. Orders may be issued from time to time and there are no limitations on the number of TO's that can be issued.

## **7. Comprehension of Contract and Specifications**

- 7.1. The Contractor warrants that it has read, understood and agreed to each and all terms, clauses, specifications and conditions specified in the Contract and that this signature of the Contract is an acceptance, without reservations, of the said Contract terms within their normal and common meaning.

- 7.2. The specifications and requirements in the Statement of Work set forth the performance requirements for the Contractor's proposed work under this Contract. Accordingly, notwithstanding any conflict or inconsistency which hereafter may be found between achievement of the aforesaid performance requirements and adherence to the Contractor's proposed design for the work, the Contractor hereby warrants that the work to be delivered will meet or exceed the performance requirements of the said specifications.



- 7.3.** The Contractor hereby acknowledges that it has no right to assert against the Purchaser, its officers, agents or employees, any claims or demands with respect to the aforesaid specifications as are in effect on the date of award of this Contract that are:
- 7.3.1.** Based upon impossibility of performance, defective, inaccurate, impracticable, insufficient or invalid specifications, implied warranties of suitability of such specifications, or
- 7.3.2.** Otherwise derived from the aforesaid specifications, and hereby waives any claims or demands so based or derived as might otherwise arise.
- 7.4.** Notwithstanding the “Changes” Clause or any other Clause of the Contract, the Contractor hereby agrees that no changes to the aforesaid specifications which may be necessary to permit achievement of the performance requirements specified herein for the Contractor’s proposed work shall entitle the Contractor either to any increase in the firm fixed price as set forth in this Contract or to any extension of the delivery times for the work beyond the period of performance in the SSS.

## **8. Key Performance Indicators (KPIs) and Targets**

- 8.1.** Contract performance shall be measured through the use of the following KPIs.
- 8.1.1.** Delivery on Time (DOT). A log will be maintained by the Purchaser of how many times delivery is late, and to which degree. The lead time for deliveries are listed in the SSS, and captured in the applicable TO.
- 8.1.2.** Delivery Complete. A log will be maintained by the Purchaser comparing the inspection results with the amount of items ordered per TO. The inspection will note how many items were missing or defect upon inspection, and to which degree. Delivery inspection and acceptance requirements are described in Section 3.7 of the SOW.
- 8.1.3.** Delivery Discrepancy Closure. A log will be maintained by the Purchaser of how many days it takes between the notification and the closure of a delivery discrepancy. Delivery discrepancies are described in Section 3.7 of the SOW.
- 8.1.4.** Warranty Resolution. A log will be maintained by the Purchaser of how many days it takes between the notification and the closure of a warranty claim. Warranty resolution is described in Section 3.11 of the SOW.
- 8.1.5.** Up to date Product Catalogue. A log will be maintained by the Purchaser capturing whether the Product Catalogue was up to date throughout the Quarter in question. The Product Catalogue requirements are described in Section 4.6 of the SOW.

- 8.2. The measurement methodology and targets of the different KPIs are detailed in Section 4.3 of the SOW.
- 8.3. Failure to achieve two (2) "PASS" scores in the Total Quarterly Scores, as outlined in Section 4.3 of the SOW, will give rise to the Purchaser's right to invoke the "Termination for Default" Clause of these Contract Special Provisions.

## 9. Terms of Delivery

- 9.1. Deliverables under this Contract, shall adhere to the requirements stipulated in Section 3 of the SOW.

## 10. Invoices and Payment Terms

- 10.1. Following Purchaser acceptance of Goods and Services required under the TO, the Contractor shall submit invoices at the completion and acceptance of the TO as per the Clause 11 "Acceptance Procedures".
- 10.2. No payment shall be made with respect to undelivered supplies; works not performed, documentation not delivered, services not rendered and/or incorrectly submitted invoices.
- 10.3. No payment shall be made for additional items delivered that are not specified in the TO.
- 10.4. Evidence of the acceptance by the Purchaser shall be attached to all invoices.
- 10.5. The Contractor shall note that the Purchaser is exempt from customs duties and VAT. The invoice amount shall be exclusive of VAT and exclusive of all Taxes and Duties as per the "Taxes and Duties" Clause of the NCI Agency General Provisions.
- 10.6. **Invoices shall be properly supported with any necessary reports, certificates, statements, receipts, written evidence of acceptance by the Purchaser and any other required documentation in accordance with the terms of the Contract.**
- 10.7. The invoice shall contain the following certificate:

*"I certify that the above invoice is true and correct, that the delivery of the above described items has been duly effected and/or that the above mentioned services have been rendered and the payment therefore has not been received."*

The certificate shall be signed by a duly authorised company official on the designated original.

- 10.8. Invoices referencing "CO-XXX-e-FIT / Task Order No XXX or Purchase Order No

XXX” shall be submitted to:

[accountspayable@ncia.nato.int](mailto:accountspayable@ncia.nato.int)

**10.9. No paper invoices will be accepted.**

**10.10.** NCI Agency will make payment within 45 days of receipt by NCI Agency of a properly prepared and documented invoice.

## **11. Acceptance Procedures**

**11.1.** Acceptance is the action by which the Purchaser formally acknowledges that the Contractor has fully demonstrated that TO deliverables are complete or have been performed according to the requirements as described in Section 3.7 of the SOW.

## **12. Obsolescence Replacement**

**12.1.** If any COTS products specified in the Contract are discontinued by their original providers for commercial or technological reasons, the Contractor shall ensure the original products are replaced in the Product Catalogue with the new versions within a month of this notification.

**12.2.** If necessary for evaluation by the Purchaser, the Contractor shall provide a demonstration of the proposed items. Should the Purchaser decide that the proposed item(s) be included in the Contract, an equitable price adjustment will be negotiated based on fair and reasonable pricing and the proposed item(s) shall be added to the Contract by bilateral modification under the authority of this Clause.

**12.3.** All changes to the Product Catalogue and specification will be periodically formalized in a Contract Amendment, as described in the “Changes” Clause of these Special Provisions.

## **13. Warranty & Support**

**13.1.** The Contractor shall provide warranty and support on all material provided under this Contract and in accordance with the relevant Paragraphs in Section 3 of the SOW.

**13.2.** The warranty period for all equipment shall be a minimum of 1 year from the date of acceptance where no further period is specified.

**13.3.** Should any period of warranty or conditions of the warranty provided by either the Original Equipment Manufacturer (OEM) or the (Sub-)Contractor exceed those required by the Contract, then these periods or conditions may be incorporated in the Contract at the sole discretion of the Purchaser.

**13.4.** Should any warranty case not be closed within the timelines specified in Section 3.11 of the SOW, the Purchaser will reserve the right to purchase the replacement item from alternative suppliers. The cost of which shall be reimbursed by the Contractor.

**14. Contract Administration**

**14.1.** All notices and communications between the Contractor and the Purchaser shall be written and conducted in the English language. Contract modifications shall only be valid when received in writing from the General Manager, NCI Agency, and/or the NCI Agency Contracting Authority.

**14.2.** Formal letters and communications shall subsequently be sent by e-mail to the official points of contact quoted in this Contract. Physical copies may be delivered through the following formal communication means; personal delivery, sent by mail/ registered mail/ courier/ or other delivery service.

**14.3.** Informal notices and informal communications may be exchanged by all communication means, including telephone and e-mail. All informal communication must be confirmed by a formal letter or other formal communication to be contractually binding.

**14.4.** All notices and communications shall be effective on receipt.

**14.5. Official Points of Contact:**

Purchaser	Contractor
<b>NCI Agency</b> NATO Headquarters Avenue Leopold III 1110 Brussels Belgium	<b>[Company name]</b> [Address] [Postcode and City] [Country]
For Contractual & Technical matters: The Contracting Officer responsible for this solicitation is Mr. Giacomo Piliego, all Correspondence regarding this Contract should solely be addressed to: Mr. Werner Goos, Contracting Officer Tel: +32 2 360 4483 E-mail: <a href="mailto:werner.goos@ncia.nato.int">werner.goos@ncia.nato.int</a>	For Contractual matters: Attn: ... Tel: +... E-mail: ...
For technical/administrative matters: Attn: e-FAST Mailbox Tel: N/A E-mail: <a href="mailto:e-FAST@ncia.nato.int">e-FAST@ncia.nato.int</a>	For technical/delivery matters: Attn: ... Tel: +... E-mail: ...

or to such address as the Purchaser may from time to time designate in writing.

**15. Sub Contracts**

- 15.1.** The Contractor shall place and be responsible for the administration and performance of all sub-contracts including terms and conditions which he deems necessary to meet the requirements of this Contract in full.
- 15.2.** The Contractor shall not place sub-contracts outside the NATO member Nations unless the prior authorisation of the Purchaser has been obtained. Such authorisation will not be granted when the sub-contract involves the carrying out of classified work.

**16. Changes**

- 16.1.** The Purchaser intends to manage changes to this Contract using the change management procedure described below.
- 16.2.** Request For Change (RFC) is a proposal for changes relevant to the specifications of the items, their market availability, their obsolescence, or any other technological changes.
- 16.3.** The Contractor shall submit the RFCs in written form only upon prior confirmation from the Purchaser that such changes are necessary in light of varied facts or circumstances which prevent the execution of the Contract in its then current form.
- 16.4.** Any RFC submitted by the Contractor to the Purchaser shall, in any case contain as a minimum the RFC identification number, the rationale for the changes, effected CLIN, new CLIN proposal for newly added items, and any effect to the Schedules, technical solutions, and pricing.
- 16.5.** The Contractor shall provide the RFC template prior to the Kick-off Meeting, and shall update the template based on Purchaser feedback.
- 16.6.** The Contractor shall release RFCs in following conditions and within noted timelines:
- 16.6.1.** items will no longer be available for future orders due to obsolescence (immediately),
  - 16.6.2.** new items are in the market that can replace the existing ones with the same form, fit, function specifications (bi-annually and at Technical Refresh Review Meetings as per SOW Section 4.5),
  - 16.6.3.** new items are required due to the new Purchaser requirements (as requested),
  - 16.6.4.** replacement items are required due to the changing Purchaser requirements (as requested).
- 16.7.** The Purchaser will provide written confirmation if the RFC is authorized. In case

of RFC rejection, the Contractor shall proceed with the performance in accordance with the Contract.

- 16.8.** The Contractor shall update and release the Product Catalogue within 5 business days after authorization of the RFC's in written form by the Purchaser contractual representative.
- 16.9.** The Purchaser may start ordering based on the new Product Catalogue prior to the formalization via a Contract Amendment. The Purchaser may decide to amend the contract after one or multiple RFCs.
- 16.10.** Except as otherwise provided for in this Contract, prices quoted for the changes, modifications, etc. shall remain valid for the entire period of performance validity of this contract.

## **17. Options**

- 17.1.** The Purchaser may extend the period of performance of the Contract for up to two further increments of one year each or such further period as may be agreed between the parties.
- 17.2.** The existence of an option does not imply that it will be exercised.
- 17.3.** The options may be exercised by the Purchaser as follows:
  - 17.3.1.** The options may be exercised by written notification of the Purchaser;
  - 17.3.2.** The options may be exercised either together or separately;
- 17.4.** The options are open for exercise at any time from EDC to 30 June 2024;

## **18. Liquidated Damages**

- 18.1.** If the Contractor fails to:
  - 18.1.1.** Successfully meet the required performance dates as defined in the Schedule of Supplies and Services, or any extension thereof, or;
  - 18.1.2.** Deliver and obtain acceptance of the deliverables or to acceptably perform the Services as specified in the Schedule of Supplies and Services, Statement of Work and applicable Task Orders.
- 18.2.** The actual damage to the Purchaser for the delay will be difficult or impossible to determine. Therefore, in lieu of actual damages the Contractor shall pay to the Purchaser, for each day of delinquency in achieving the Requirements, fixed and agreed Liquidated Damages of 0.1% (one tenth of one per cent) per day of the total payment amount for each Payment Event as scheduled in the "Invoices and Payment Terms" Clause of these Contract Special Provisions.
- 18.3.** Liquidated Damages shall be payable to the Purchaser from the first day of

delinquency in delivery and shall accrue at the rate specified in the paragraph above to an aggregate sum of all delinquent items not to exceed fifteen percent (15%) of the total value of the Task Order for the performance of which the Contractor is delinquent. These liquidated damages shall accrue automatically and without any further notice being required.

- 18.4.** The Contractor shall not be charged with Liquidated Damages when the delay arises out of causes beyond the control and without the fault or negligence of the Contractor. In such event, subject to the provisions of the “Disputes” and “Arbitration” Clauses of the NCI Agency General Provisions, the Purchaser shall ascertain the facts and extent of the delay and shall extend the time for Performance of the Contract when in its judgment the findings of fact justify an extension.
- 18.5.** In addition, the Purchaser may terminate this Contract in whole or in part as provided in the “Termination for Default” Clause of the NCI Agency General Provisions. In the event of such a termination, the Contractor shall be liable for Liquidated Damages accruing to the date of termination, as well as the excess costs stated in the referred Clause.
- 18.6.** The amount of Liquidated Damages due by the Contractor shall be recovered by the Purchaser in the following order of priority:
- 18.6.1.** By deducting such Liquidated Damages from the amounts due to the Contractor against the Contractor's invoices.
- 18.6.2.** By reclaiming such Liquidated Damages through appropriate legal remedies.
- 18.7.** This clause shall be deemed to apply to each issued Task Order.

## **19. Termination for Default**

- 19.1.** Clause 39 “Termination for Default” of the NCI Agency General Provisions is hereby supplemented as follows:
- 19.2.** The Purchaser **reserves the right to**, by written notice of default to the Contractor, terminate the whole or any part of this Contract for continuous poor performance, if the Contractor fails to achieve sufficient “PASS” markings in its Total Quarterly Scores in relation to the KPIs established in the “Key Performance Indicators (KPI's) and Targets” Clause of these Special Provisions, in the following case:
- 19.2.1.** two (2) **consecutive** “FAIL” Total Quarterly Scores;
- 19.3.** **Upon the occasion of the first “FAIL” Total Quarterly Score, the Purchaser shall notify the Contractor to initiate a discussion and request a plan for corrective action for the Contractor to improve its performance.**
- 19.4.** In case **a second consecutive “FAIL” Total Quarterly Score as** illustrated above

in 19.2.1 occurs, the Purchaser shall issue to the Contractor a written Notice of Termination, signed by the Contracting Authority, stating that continuous poor performance exists, specifying the extent to which performance of Work under the Contract is terminated, and the date upon which such termination becomes effective.

**19.5.** After receipt of a Notice of Termination, the Contractor shall:

- 19.5.1.** stop the Work on the date and to the extent specified in the Notice of Termination;
- 19.5.2.** place no further orders or Sub-contracts, except as may be necessary for completion of such portion of the work under the Contract as is not terminated;
- 19.5.3.** terminate all orders and Sub-contracts to the extent that they relate to the performance of Work terminated by the Notice of Termination.

**19.6.** In the event of a situation as described in Sub-Clause 39.6 of the NCI Agency General Provisions, the Contractor shall provide proof in writing no later than 5 business days after receipt of the Notice of Termination described above.

**19.7.** Continuous poor performance as illustrated above is understood to be an objective reality, based on facts and mutual understanding, and is therefore not open for disputes under the "Disputes" or "Arbitration" Clauses of the NCI Agency General Provisions.

## **20. Force Majeure**

**20.1.** Neither Party shall be responsible for failure or delay of performance if caused by: an act of war, hostility, or sabotage; act of God; pandemic; electrical, internet, or telecommunication outage that is not caused by the obligated party; government restrictions; or other event outside the reasonable control of the obligated party.

**20.2.** Both parties will use reasonable efforts to mitigate the effect of a force majeure event. If such event continues for more than thirty (30) days, either party may cancel unperformed services upon written notice.

**20.3.** This clause does not excuse the Contractor's obligation to take reasonable steps to follow its normal disaster recovery procedures.



**21. ANNEX A: SAMPLE TASK ORDER<sup>1</sup>**

(see excel "Attachment 10 – Sample Task Order – Amendment 2")

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<sup>1</sup> This is a sample Task Order, and could be in a different format when the contract is awarded.

**NATO Communications and Information Agency**



**IFB-CO-115125-e-FIT**

- Provision of -

**COTS IT  
HARDWARE AND ASSOCIATED SUPPORT**

**BOOK II - PART IV**

**STATEMENT OF WORK (SOW)**

**AMENDMENT 2**

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## 1 INTRODUCTION

### 1.1 INTRODUCTION AND SCOPE

- 1.1.1 This document details the performance of work and provision of deliverables as listed in the Contract Schedule of Supplies and Services (SSS) for which detailed technical specifications are provided at Annex A to this Statement of Work (SOW).
- 1.1.2 The Contractor shall provide equipment, including accessories and associated software, conforming to the technical specifications and configurations throughout a set timeframe, as well as the associated support linked thereto.
- 1.1.3 The Contractor shall supply equipment and services to all authorized NATO Command Locations in Europe and North America **including any of NATO's Affiliates**, upon issuance of Task Orders in accordance with the terms of the Contract. **The list of existing affiliates is available at <http://www.nato.int/cps/en/natolive/structure.htm>**
- 1.1.4 The Purchaser will convene a kick off meeting with the Contractor shortly after Contract Award in order to ensure that the method of working together is understood by both parties. This meeting will take place in either Belgium or the Netherlands.

## **2 CONTRACTOR TASKS**

### **2.1 GENERAL RESPONSIBILITIES**

- 2.1.1** The Contractor shall deliver the hardware and associated support upon reception of a Task Order (TO). The TO and ordering process are detailed in the "Task Orders and Ordering" Clause of the Contract Special Provisions.
- 2.1.2** The Contractor shall deliver the equipment as requested in the TO in compliance to the specifications as described in Annex A to this SOW and in the SSS, to the destination specified in the TO, and in accordance with the requirements in Section 3 of this SOW.
- 2.1.3** The Contractor shall provide the tempested equipment per the SSS and in accordance with the SDIP 27 appropriate level, including the certification corresponding to the specific tempest level (Level A, Level B or Level C).
- 2.1.4** As well as providing and delivering technically compliant equipment and accessories, the Contractor shall manage the delivery process and provide technical advice and expertise relative to the equipment and accessories provided under the Contract.
- 2.1.5** The Contractor shall adhere to the delivery timelines as described in the SSS, unless otherwise specified in the relevant TO.
- 2.1.6** The Contractor shall establish and maintain a Product Catalogue for all hardware described in this SOW on a mutually accessible portal, as elaborated in Section 4 of this SOW. Changes to the Product Catalogue will lead to periodic changes to the SSS and the Schedule in Annex A of this SOW through Contract Amendments, as detailed in the "Changes" Clause of the Contract Special Provisions.
- 2.1.7** The Contractor shall conduct annual Technological Refresh Review (TRR) Meetings as detailed in Section 4 of this SOW during the performance of this Contract under the direction of the Purchaser at which time, the current contracted technical baseline shall be examined to determine whether any changes to the items described in Annex A to this SOW are deemed necessary. Changes may be proposed by both the Purchaser and the Contractor but shall only be enacted on the specific direction of the Purchaser, as detailed in the "Changes" Clause of the Contract Special Provisions.
- 2.1.8** The Contractor shall provide the associated warranty and support for each item specified in the SSS in accordance with the requirements in Section 3 of this SOW. This shall include, but is not limited to, on-site installation and commissioning services, (on-site) warranty repair and replacement services as detailed in Section 3 of this SOW.

**2.1.9** All Contractor, or Sub-contractor personnel shall be of the nationality of any one of the member states of NATO and shall be bound by the security regulations in force within NATO.

**2.1.10** The Purchaser acknowledges the possibility that due to the fast moving nature of changes in technology, that at the time of contract or task order award, some of the Purchaser's requirements may be discontinued, obsolete, or otherwise no longer available, thereby in need of a replacement or substitution.

**2.1.11** With this acknowledgement, the Purchaser advises that for each Contract Line Item Number (CLIN) in the Schedule, the Contractor is allowed to propose, for the Purchaser's approval, an alternative (i.e. a replacement or substitution) if due to discontinuation or obsolescence or the Agency's original requirement is neither available or otherwise not considered to be best suitable.

### **3 INTEGRATED LOGISTIC SUPPORT**

#### **3.1 INTRODUCTION**

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

#### **3.2 INVENTORY**

**3.2.1** The Contractor shall provide the full and complete inventory within the Material Data Sheet (MDS) of all items (hardware, software and licences) and documents to be delivered under this Contract at least ten (10) working days before shipment, to the Purchaser Point of Contact (PoC) as described in SOW Section 3.4.11.

**3.2.2** The Contractor shall provide the MDS based on the data fields listed in Annex B. The Contractor **shall obtain** an electronic version of the MDS template from the Purchaser PoC after contract award. The Purchaser will not accept a delivery without complete and accurate inventory data.

#### **3.3 LABELLING**

**3.3.1** Labelling and marking shall be compliant with STANAG 4281 "NATO Standard Marking for Shipment and Storage".

**3.3.2** The Contractor shall produce labels and label items furnished under the Contract with the true manufacturer's name (CAGE code), part number and serial number to ensure proper and quick identification of delivered items.

#### **3.4 SHIPPING AND TRANSPORTATION**

**3.4.1** The Contractor shall arrange the shipment, transportation and delivery of all items furnished under this Contract from its site in a NATO nation to final destination, and as indicated in TOs and prior to the deadlines (lead times) established in the SSS.

**3.4.2** All items covered under the Contract shall be Delivered Duty Paid (DDP, INCOTERMS 2010) to the addresses specified in the TO. Items being returned after warranty repair, shall also be shipped at the expense of the Contractor.

**3.4.3** The delivery schedule of a TO shall consist of one or more shipments as requested by the Purchaser, spaced out in time, to allow the Purchaser time to process the quantities shipped as necessary.

**3.4.4** Each shipment shall be composed of one batch of one or more pallets. A pallet shall be defined as the standard Euro-pallet (EUR/EPAL; 1200mm x 800mm), packed to a height as close as practicable to a total maximum height of 1800mm, and not exceeding a total weight of 1000 Kg.

- 3.4.5** The Contractor shall size its delivery capacity for simultaneous shipments to multiple sites. If the Contractor foresees a capacity risk due to several simultaneous TOs, then the Contractor shall notify the Purchaser immediately upon reception of the TO, and provide a risk mitigation plan within 3 business days, for the Purchaser to decide how to proceed.
- 3.4.6** The Contractor shall be fully responsible for handling, storage, insurance, supply chain security, and custom procedures (including administrative charges in customs, if any) involved in transportation and delivery of supplies prior to the actual acceptance as per SOW Section 3.7 of such supplies at destination.
- 3.4.7** The Contractor shall organise and operate any handling equipment required to unload the equipment in the Purchaser’s warehouse or building.
- 3.4.8** The Purchaser will not accept responsibility and/or ownership of the equipment before successful inspection and acceptance is complete, as detailed in the SOW Section 3.7 regarding the Delivery Acceptance.
- 3.4.9** All shipments shall be executed in close co-ordination with the Purchaser’s PoC for logistics at SOW Section 3.4.11, and delivery acceptance personnel at final destination.
- 3.4.10** The Contractor shall contact the Purchaser PoC for **confirmation of the** exact shipment address and detailed instructions, before making any shipment arrangements.
- 3.4.11** The Contractor shall provide the Purchaser with a Notice of Shipment (NoS) at least 10 business days in advance of each shipment. One additional copy of the packing list shall be attached to this notice.

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

- 3.4.12** The NCI Agency PoC for all shipment instructions and shipment requests is:  
 PoC: Derya Adiyen (NCI Agency The Hague) / ILS Office  
 E-mail: [derya.adiyan@ncia.nato.int](mailto:derya.adiyan@ncia.nato.int)

- 3.4.13** The Contractor shall provide the safety test reports that is required for the



transportation of the devices containing Lithium-Ion Batteries no later than the actual delivery date of the shipment. Deliveries without the safety test report will not be accepted by the Purchaser.

**3.4.14** The Contractor shall provide the Tempest Certificates within the shipment package or prior to the delivery. Deliveries without the tempest certificates will not be accepted by the Purchaser.

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

**3.4.16** The Contractor shall ensure that the Contractor (or its Sub-Contractor) personnel that is performing the physical delivery are citizens from a NATO nation.

**3.5 PRESERVATION AND PACKAGING**

**3.5.1** The Contractor shall, for the purpose of packaging, handling, storage and transportation, prepare and package items in accordance with STANAG 4280 “NATO Levels of Packaging”, NATO packaging level 4, giving due consideration to shipping and other hazards associated with the transportation of consignments overseas.

**3.5.2** Packaging and any standard or special packaging materials and containers (boxes, pallets, shipping containers) required for the shipment of items shall be the responsibility of the Contractor at no extra cost to the Purchaser.

**3.5.3** Each individual pallet/box shall have the packing list in a weatherproof envelope attached to the outside of each container/box detailing its contents. Another copy of the list shall be provided inside each pallet/box.

**3.5.4** In the case of hazardous/dangerous goods and goods requiring export licenses, the Contractor shall ensure that all required forms, safety test reports and certificates are provided within the shipment documents and that all applicable regulations for such goods are followed.

**3.5.5** The packing list shall include the following information as a minimum:

Serial	Requirement
1	The Shipping Address
2	Package Number
3	Contract Number and CLIN as per SSS
4	Item Description
5	Part Number and Serial Number
6	Quantity
7	Method of shipment and destination
8	Weight and Volume details

Serial	Requirement
9	Number of pallets/boxes
10	Name and address of the Contractor, Purchaser and Consignor
11	Name and address of the freight forwarder

**3.6 CUSTOMS**

- 3.6.1** The Contractor shall be responsible for customs clearance of all shipments into the destination countries. It is the Contractors responsibility to take into account delays at customs.
- 3.6.2** The Contractor shall be responsible for the timely request of Custom Forms 302, required for duty free import/export of NATO supplies. However, this duty free status does not include any admin charges that may incur during the customs clearance depending on the HN regulations. Therefore, the Contractor shall be fully responsible for handling such admin charges without any additional cost to the Purchaser.
- 3.6.3** The written request for a 302 form shall be sent to the Purchaser PoC clearly stating the Consignor’s and Consignee’s name and address, PoC to receive the original Form 302. This request shall be accompanied by one packing list.
- 3.6.4** The Contractor shall ensure that forwarding agents are fully informed of the availability of Form 302 and how this form is utilised to avoid the payment of Customs Duties. Form 302 shall be added to the shipment documents to be provided to the carrier.
- 3.6.5** Following receipt of the request by the Purchaser, normally ten (10) working days are required for the issue of the form.
- 3.6.6** These forms shall be originals and must be mailed or delivered by mail/express courier to the Contractor. If an express courier has to be used by the Purchaser to ensure that the form is available on time before shipment, all associated costs shall be reimbursed by the Contractor.
- 3.6.7** If a Country refuses to accept the Form 302 and requires the payment of custom duties, the Contractor shall immediately inform the Purchaser by the fastest means available and obtain from the Custom Officer a written statement establishing that its country refuses to accept the Custom Form 302. Only after having received Purchaser’s approval, shall the Contractor pay these customs duties.
- 3.6.8** The Contractor shall add the Custom Form 302 to the shipping documentation. It shall be noted that documents have to be originals which need to be available for the goods to be cleared from Customs. Any unused Form 302 shall be returned to the Purchaser.

**3.7 DELIVERY ACCEPTANCE**

- 3.7.1** All packages and containers will be inspected by the Purchaser's PoC at final destination. For this, the Contractor shall ensure that:
- 3.7.1.1.** all items requested in the TO have been accounted for;
  - 3.7.1.2.** all packages and pallets specified in the packing lists have been accounted for;
  - 3.7.1.3.** MDS information is correct and complete as per Annex B requirements;
  - 3.7.1.4.** no damage has occurred during transport;
  - 3.7.1.5.** there are no dead on arrivals (DOAs).
- 3.7.2** The Purchaser will notify the Contractor regarding any discrepancies within 10 business days, upon receipt on site. In rare cases where this cannot be achieved due to operational priorities, the Purchaser will notify the Contractor accordingly.
- 3.7.3** If there are any discrepancies noted by the Purchaser during the inspection, the Contractor shall fix these discrepancies within 10 business days after the notification by the Purchaser. The discrepancies shall be understood as following:
- 3.7.3.1.** Missing items,
  - 3.7.3.2.** Wrong items,
  - 3.7.3.3.** Damaged items,
  - 3.7.3.4.** Wrong, incomplete or missing documentation (Safety Test Reports, TEMPEST certificates, MDS etc),
  - 3.7.3.5.** DOAs.
- 3.7.4** The Contractor shall provide a concise Delivery Confirmation statement within 10 business days after each shipment has arrived at final destination or the installation activities are completed, as applicable.
- 3.7.5** If there are any licenses related to the products, the Contractor shall register these licenses under related accounts communicated by the Purchaser. The Contractor shall request the related enterprise account information before completing the registration activities.
- 3.7.6** The Purchaser will provide the confirmation for Acceptance only after the following conditions are met. For this, the Contractor shall ensure and prove that:
- 3.7.6.1.** the deliveries are completed as per SOW 3.7.1,
  - 3.7.6.2.** the delivery discrepancies are resolved as per SOW 3.7.3,
  - 3.7.6.3.** DOAs are replaced (no repair) as per SOW 3.7.3,
  - 3.7.6.4.** the Battery Safety Test Reports are fully provided as per SOW 3.4.12,
  - 3.7.6.5.** Tempest Certificates are provided (if applicable) as per SOW 3.4.13,
  - 3.7.6.6.** the licenses are accounted for and correctly registered as per SOW 3.7.5,

- 3.7.6.7. the On-Site Installation and Commissioning activities are completed as per SOW 3.10, and
- 3.7.6.8. the delivery confirmation statement is provided by the Contractor as per SOW 3.7.4.

### **3.8 TECHNICAL DOCUMENTATION**

- 3.8.1 Each deliverable shall be accompanied with its COTS documentation (user, maintenance and installation manuals). This documentation shall be identified in the inventory.
- 3.8.2 The Certificates and the Declarations of Conformity shall be provided by the Contractor at the time of the delivery.
- 3.8.3 If requested by the Purchaser, the Contractor shall provide the OEM specifications and data sheets to show the reliability characteristics of the equipment (i.e. MTBF) and the configuration item numbers assigned by the OEMs.
- 3.8.4 All documentation shall be in the English language.

### **3.9 SUPPLY CHAIN SECURITY**

- 3.9.1 The Contractor shall warrant that all supplies furnished under this Contract are genuine and free of malicious components, firmware and software.
- 3.9.2 The Contractor shall confirm in the inventory provided (i.e. MDS) that all products to be delivered have been checked for technical integrity and protected from malicious tampering, up to the point of delivery.
- 3.9.3 The Contractor shall identify in the inventory the supplier of all equipment to be delivered and the identities of suppliers of major components thereof. The Contractor shall ensure that all equipment and major components thereof are marked or labelled to identify the supplier.
- 3.9.4 The Contractor shall ensure that all equipment to be delivered are protected from malicious tampering or external intervention during storage and transportation up to the point of delivery. To ensure this protection, the Contractor shall use specially marked packaging material that has a lower risk of duplication.
- 3.9.5 The Contractor shall allow and support ad-hoc spot checks and audits by the Purchaser of any of its supply chain security measures at any of the Contractor's locations and facilities used in the Contractor's supply chain relevant to this Contract.
- 3.9.6 The Purchaser reserves the right to reject, at the Contractor's expense, any equipment delivered which does not conform to the description provided in

the inventory, shows evidence of tampering or constitutes a risk being intervened/tampered during transportation due to theft or unauthorized access. The Contractor shall replace such goods at no cost to the Purchaser.

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

### **3.10 INSTALLATION AND COMMISSIONING SERVICES**

- 3.10.1** If covered under the TO and in accordance with the SSS, the Contractor shall provide qualified and experienced **technicians/engineers** at specified Purchaser locations to support installation activities under the direction of Purchaser personnel.
- 3.10.2** The Contractor shall ensure that certified installation and professional services **technicians/engineers** with a **NATO S3CRET** security clearance are used from the equipment manufacturer/vendor support organisation to install and commission equipment to comply with support/warranty requirements.
- 3.10.3** The Contractor shall plan the on-site installation activities to be completed no later than 10 business days after the on-site receipt of the items. In case the actual installation activities are anticipated to take longer than 5 business days, the completion date will be extended accordingly.
- 3.10.4** The Contractor shall propose the installation dates at the time of NoS released as per SOW 3.4.10 to ensure that the Customer site is ready and available to allow the visit and the activities.
- 3.10.5** The Contractor shall provide the required personnel data no later than 10 business days before the on-site visit, to ensure that necessary authorizations can be obtained and site access can be granted.
- 3.10.6** Installation and commissioning activities shall be fully covered and costed under the related SSS CLIN as described in TO. This shall include any material, travel, per diem or any additional cost that may incur during these activities.

### **3.11 WARRANTY & SUPPORT**

- 3.11.1** The Contractor shall warrant that all supplies (Hardware, Software, licenses) furnished under this Contract conform to the requirements, delivered in 'new' condition and are free of any defect in material, code or workmanship.

- 3.11.2** The Warranty shall start at the date of the Acceptance as described in SOW Section 3.7.6 at the destination sites and shall be at least for 1-year duration from the day of acceptance (after installation, if applicable). **If a longer warranty duration specified in its respective schedule annex, then the warranty shall be 3-years or 5-years for those products in line with their product specification. For those products, the warranty extension as per SOW 3.11.16 will not be applicable.**
- 3.11.3** The Contractor shall assign a PoC within its organization for the warranty claims and shall not delegate such responsibility to its suppliers (i.e. OEMs) unless agreed by the Purchaser on a case by case basis for practicality reasons. **The warranty services shall be usable/evokable in all NATO locations and countries, without any restriction to the country of the supplier or the delivery locations.**
- 3.11.4** The Contractor shall provide detailed handling instructions, including help-desk and Point of Contact information, to be contacted in case of a warranty claim for each type of equipment. All warranty communications shall be in English.
- 3.11.5** The Contractor shall provide the following warranty services:

Item Category	Item Type	Warranty Service Type*	Resolution Time**	On-Site Intervention***
<b>End-User Items</b> (including but not limited to laptops, tablets, monitors, workstations, thin/thick clients, desktop PCs, projectors, VOIP, KVM switches, peripherals and accessories (mouse, keyboard, webcam, cables, batteries, patch cords, headsets, power adapters, power supply filters and so on) as described in SSS)	COTS	Replacement	10 Business Days	N/A
	TEMPEST	Replacement	20 Business Days	N/A
<b>End-User Items (large)</b> (including but not limited to plotters, printers, DVD Robots)	COTS	Repair/ Replacement	10 Business Days	Yes
	TEMPEST	Repair/ Replacement	20 Business Days	Yes
<b>Servers, Storage, LAN Items</b> (including but not limited to servers, storage, firewalls, switches, routers)	Devices	Repair/ Replacement	10 Business Days	Yes
	Accessories and sub-components (cables, SFPs, media storage devices/HDDs, batteries, power supplies)	Replacement	10 Business Days	N/A

<i>*When the 'replacement' service is to be applied, the Purchaser will ship back the faulty devices after the receipt of the replacement devices. This excludes media storage devices as per SOW 3.11.14.</i>
<i>**Resolution time window shall start with the notification from the Purchaser as per SOW 3.11.6 and end with the warranty closure as per SOW 3.11.7 (or 3.11.8 for tempested devices). Warranty Claim Resolution will be monitored as one of the KPIs.</i>
<i>***On-site intervention shall only be provided when the items are too large to ship and can be repaired on-site; or when the media storage items cannot be removed from the devices or secure wiped, therefore the device needs to be repaired on-site.</i>

**Table 1 Warranty and Support Services**

- 3.11.6** The warranty cases shall be completely resolved and closed within ten (10) business days starting from the notification by the Purchaser creating a warranty claim via email to the Contractor PoC. If shorter timelines and specific warranty requirements are specified in Annex A, then Annex A shall be taken as reference for resolution.
- 3.11.7** The ten (10) business days for warranty resolution shall include:
  - 3.11.7.1.** the assessment and proposal for resolution and corrective actions from the Contractor;
  - 3.11.7.2.** technical assistance to Purchaser PoC for remote troubleshooting,
  - 3.11.7.3.** the shipment and receipt of the repair parts at Purchaser facilities,
  - 3.11.7.4.** proposal of alternative parts if the original part is not available,
  - 3.11.7.5.** the receipt of the repaired device or replacement device/parts at Purchaser facilities,
  - 3.11.7.6.** on-site intervention as described in SOW 3.11.10,
  - 3.11.7.7.** closure of the warranty case following Purchaser confirmation.
- 3.11.8** For tempested devices, the above 10 business days will be extended to 20 business days.
- 3.11.9** The Contractor shall provide the shipment address for faulty equipment to the Purchaser. The shipment of faulty equipment to the Contractor is at the expense of the Purchaser. The shipment of repaired or replaced equipment from the Contractor to the Purchaser shall be at the expense of the Contractor.
- 3.11.10** If the failure could not be identified remotely or the failed devices are too large to ship (DVD robots, printers, plotters, servers, racks and so on), the Contractor shall dispatch a field technician to resolve the issue on-site in Purchaser or its Customer's facilities, ensuring that the resolution will be completed before the timelines specified in SOW Section 3.11.7.
- 3.11.11** The Purchaser will maintain KPIs for warranty claims as described in SOW 4.3.
- 3.11.12** In case the Contractor fails to successfully close the warranty case within 10 business days as per SOW 3.11.7, the Purchaser reserves the right to purchase the replacement item from alternative suppliers and the cost shall

be reimbursed from the Contractor as per the "Warranty & Support" Clause in the Contract Special Provisions.

- 3.11.13** If a specific device fails the second time after repair following the first failure, the Contractor shall replace the device and not continue with the repair services after the second failure.
- 3.11.14** Defect magnetic, solid state and electronic media storage devices (e.g. CD-ROM's, DVD's, USB sticks, solid state storage drives, hard drives) will not be returned to the Contractor for warranty repair or replacement due to NATO security constraints. The Contractor shall replace such defect storage devices with new storage devices at no additional cost to the Purchaser. In case the storage media cannot be separated from the device, the Purchaser will secure-wipe the media and return the device without the originally provided software, if not possible to secure-wipe the Contractor shall dispatch a field technician for on-site repair without additional cost to the Purchaser.
- 3.11.15** If the original part is no longer available for warranty repairs or replacements, the Contractor shall provide the alternatives or superseding items, ensuring quality and form, fit and functional requirements. The Contractor shall propose the alternative part with the related part information (P/N, OEM) for Purchaser approval.
- 3.11.16** The Contractor shall extend the warranty from 1-year to 3-years for each CLIN listed in SSS, if requested by the Purchaser in the TO. If extended, the warranty requirements listed in SOW Section 3.11 shall be applicable in its entirety for the duration of the extended warranty. The Purchaser may decide to extend the warranty until the actual delivery date, and amend the TO accordingly.



## 4 PROJECT MANAGEMENT

### 4.1 INTRODUCTION

4.1.1 This Project Management section outlines the general administration requirements of this Contract.

4.1.2 The project will be managed and administrated by the e-FAST Team, who will act as the Purchaser's representative for all project matters, as well as contractual issues, and will therefore be the primary interface between the Contractor and the Purchaser from the Effective Date of Contract (EDC). The contact information of this generic inbox is listed in the "Contract Administration" Clause of the Contract Special Provisions.

### 4.2 KEY PERSONNEL

4.2.1 The Contractor shall designate a Delivery Manager (DM), who shall direct and co-ordinate the activities of the Contractor's project team for the entire duration of the Contract.

4.2.1.1. The Contractor's DM shall be the Contractor's primary interface to the Purchaser's representative.

4.2.1.2. The DM shall be responsible for all deliveries to sites according to Task Orders issued under the contract. She/He shall further be responsible for all aspects of the day-to-day coordination of equipment deliveries (including but not limited to: orders, customs, notifications, transport, shipment, receipt, hand-over to local stock, and accounting), as well as creating and maintaining an up to date Product Catalogue.

4.2.1.3. The Contractor's DM shall support and attend the Technical Refresh Reviews according to the provisions in Section 4.5 of this SOW.

4.2.2. The Contractor shall designate a Technical Lead (TL), who shall exercise the technical obligations of the Contractor under the Contract, including but not limited to:

4.2.2.1. the ILS requirements in Section 3 of this SOW;

4.2.2.2. advising on the commercial availability of the items which will deliver the technical requirements of the Purchaser;

4.2.2.3. advising on the technology roadmap, changing market offerings;

4.2.2.4. advising on obsolescence management due to end of production, end of sale, or end of support;

4.2.2.5. advising on the technical qualities and characteristics of all equipment and accessories provided under the Contract.

4.2.3. The Contractor may combine the roles of Delivery Manager and Technical Lead into one person providing that the individual proposed has the

qualifications and experience to undertake both roles and the projected workload can be managed by one person. This arrangement shall be subject to Purchaser approval.

**4.3. KEY PERFORMANCE INDICATORS (KPIs) SCORECARD**

**4.3.1.** The contract performance shall be measured on a quarterly basis through the use of the five (5) KPIs listed in the “Key Performance Indicators (KPIs) and Targets” Clause of the Contract Special Provisions.

**4.3.2.** Each KPI has a target, and the KPI shall be awarded a percentage score of compliance towards this target during the quarter in question.

**4.3.3.** Each KPI score is weighted in terms of its importance to the overall contract performance via a pre-determined weight.

**4.3.4.** The weighted score, per quarter, of the KPIs provides the Total Quarterly Score in percentages. This Total Quarterly Score shall then be reflected in a Pass or Fail manner on the “Overall Scorecard” to allow for ease of visibility.

**4.3.4.1.** Pass = 90.1 – 100%

**4.3.4.2.** Fail = 0 – 90%

**4.3.5.** The Purchaser will share the Scorecards, and associated feedback, with the Contractor, and discuss the encountered issues and improvements, as required. Based on the feedback provided, the Contractor shall propose an action plan within 10 business days to improve on any identified shortcomings.

**4.3.6.** The KPIs shall be measured based on the following criteria and instructions, provided in Table 1 below.

KPI	WEIGHT	MEASUREMENT CRITERIA	INSTRUCTIONS FOR SCORING
<b>Delivery on Time (DOT)</b>	20%	Delay in Business Days	<ul style="list-style-type: none"> <li>• TO Delivery Date means the specified lead time (SSS / TO) after the TO release date.                             <ul style="list-style-type: none"> <li>• Arrived by deadline = 100%</li> </ul> </li> <li>• Arrived maximum of 2 business days late = 95%</li> <li>• Arrived maximum of 5 business days late = 90%</li> <li>• Every additional business day delay = reduction of 5%</li> </ul>
<b>Delivery Complete</b>	20%	Delivery Completeness Percentage	<ul style="list-style-type: none"> <li>• Complete delivery means all items are correctly delivered in quantity, type, and undamaged based on the inspection as per SOW Section 3.7.                             <ul style="list-style-type: none"> <li>• Complete delivery, or above 99% = 100%</li> </ul> </li> <li>• All percentages are rounded up to the nearest %-point.                             <ul style="list-style-type: none"> <li>• % is calculated by Items Correctly Delivered / Items Ordered</li> </ul> </li> </ul>
<b>Delivery Discrepancy Resolution</b>	20%	Delay in Business Days	<ul style="list-style-type: none"> <li>• Discrepancies are listed and elaborated in SOW section 3.7.</li> <li>• All discrepancies closed within 10 business days after Purchaser notification = 100%</li> </ul>

			<ul style="list-style-type: none"> <li>• Every additional business day delay = reduction of 5%.</li> <li>• No Discrepancies with a TO = 100%.</li> </ul>
<b>Warranty Resolution</b>	30%	Delay in Business Days	<ul style="list-style-type: none"> <li>• Warranty Claim Initiation Date means the notification by the Purchaser creating a warranty claim via email.</li> <li>• Warranty Claim Resolution Date means the Purchaser confirmation of satisfactory closure, as per SOW Section 3.11.</li> <li>• All Warranty Claims satisfactorily closed within 10 Business days for COTS, or 20 Business days for TEMPEST devices = 100%</li> <li>• Every additional business day delay = reduction of 5%.</li> <li>• 1 Business day is counted as 24h from the notification.</li> </ul>
<b>Up to Date Product Catalogue</b>	10%	Yes or No (following Purchaser request via TO)	<ul style="list-style-type: none"> <li>• The Product Catalogue is considered not 'up to date' if a Purchaser request was kept on hold or otherwise delayed due to items no longer being available, while remaining available for selection in the Product Catalogue; unless the alternative replacement was already proposed in writing to the Purchaser. This is further elaborated in SOW Section 4.6.</li> <li>• Up to date Product Catalogue = 100%</li> <li>• Notification after submission of a Task Order that the Product Catalogue is not up to date = 0%</li> </ul>

**Table 2 Scorecard Instructions**

**4.3.7.** All the above is detailed in visual form in the Scorecard in template form attached as Annex C to this SOW.

**4.4. KICK-OFF MEETING**

**4.4.1.** The Contractor shall attend the kick-off meeting shortly after Contract Award, when invited by the Purchaser.

**4.4.2.** The kick-off meeting shall be used to ensure full understanding of the fundamental principles underpinning this IDIQ contract, whereby the Minutes of Meeting shall capture – as a minimum – the discussion on the following topics:

- 4.4.2.1.** Key Personnel.
- 4.4.2.2.** Key Performance Indicators (KPIs) and their targets.
- 4.4.2.3.** Shipment Deliveries.
- 4.4.2.4.** Obsolescence Management.
- 4.4.2.5.** Conditions surrounding contractual options.

**4.4.3.** Results from the kick-off meeting shall not relieve the Parties of any responsibilities from the Contract.

**4.5. TECHNICAL REFRESH REVIEWS (TRR)**

- 4.5.1.** The Contractor shall organise bi-annual Technical Refresh Reviews (TRRs), or more frequently if so requested by the Purchaser.
- 4.5.2.** The Contractor will receive a 2 week notice prior to the requested TRR date.
- 4.5.3.** At the TRR the Contractor shall:
- 4.5.3.1.** report on any changes to the SSS or Annex A to this SOW as proposed by the Purchaser.
  - 4.5.3.2.** report on the technology roadmaps and identify potential efficiency gains for the Purchaser in terms of avoiding obsolescence, or reducing Total Cost of Ownership and bring to the TRR any appropriate recommendation for change to the items described in Annex A to this SOW in the then current version of this Contract.
  - 4.5.3.3.** report on the current schedule of deliveries according to TOs already received including dates, places and quantities of equipment to be delivered by type;
  - 4.5.3.4.** report on the status of warranty claims that are open, and any statistics for those that are closed;
  - 4.5.3.5.** advise the Purchaser of any difficulty or problem foreseen with deliveries already ordered or with potential future deliveries based on the overall project scope as described in the sections above;
  - 4.5.3.6.** advise the Purchaser of any changes to the SSS or Annex A to this SOW which the Contractor deems necessary for the successful performance of this contract.
- 4.5.4.** The Contractor shall make a presentation at each TRR on the updates to equipment detailed in Annex A to this SOW which the Contractor recommends. This shall cover:
- 4.5.4.1.** What has changed in the market over the last 6 months (e.g. substitution, improvement, and refreshment of technology)?
  - 4.5.4.2.** What benefits can be gained by changing to newer equipment (e.g. work efficiency gains, reduced power, more user friendly etc.)?
  - 4.5.4.3.** What impact would it have on the support activities?
  - 4.5.4.4.** What was the actual failure rate of devices delivered?
  - 4.5.4.5.** Any upcoming obsolescence due to end of production, end of sale or end of support?

- 4.5.5.** The Contractor shall provide the above presentation bi-annually to report the changes referred in 16.6 of the “Changes” Clause of the Special Provisions, if there is no planned TRR at that point in time.
- 4.5.6.** When changes to the SSS or Annex A to this SOW are directed by the Purchaser, the Change management process of the “Changes” Clause of the Special Provisions shall apply.

#### **4.6. PRODUCT CATALOGUE**

- 4.6.1.** The Contractor shall create and maintain an up to date Product Catalogue, to be used by the Purchaser on its internal portal, created for the sole use of the Purchaser and its customers. If requested by the Purchaser, the Contractor shall maintain the Product Catalogue on a purchaser-owned online platform instead.
- 4.6.2.** The Product Catalogue shall contain up to date specifications of the applicable equipment Schedule at Annex A to this SOW, with any relevant information to allow the Purchaser to create a TO. This shall include, as a minimum, the following:
- 4.6.2.1.** A complete list of items, with corresponding CLIN identifier;
  - 4.6.2.2.** The specifications of the items (including different options), with corresponding product picture;
  - 4.6.2.3.** An indication of what has changed in the item or specification;
  - 4.6.2.4.** The delivery lead time;
  - 4.6.2.5.** Warranty and support options.
- 4.6.3.** The Contractor shall provide the example Product Catalogue by the kick-off meeting. The Contractor shall make the necessary changes on the formatting based on Purchaser feedback.
- 4.6.4.** The Contractor shall release the first Product Catalogue within 4 weeks of the Contract Signature.
- 4.6.5.** The Product Catalogue shall be kept up to date with any replacement to obsolete or indefinitely unavailable items updated in the manner as described in “Changes” Clause of the Contract Special Provisions.
- 4.6.6.** The Product Catalogue is considered not up to date if a customer request is kept on hold or otherwise delayed due to items no longer being available, while remaining available for selection in the Product Catalogue; unless the alternative replacement was already proposed in writing to the Purchaser.
- 4.6.7.** The Product Catalogue and specifications shall be periodically formalized in Contract Amendments as described in the “Changes” Clause of the Contract Special Provisions, unless the Purchaser determines an immediate iteration is required.

**ANNEX A: TECHNICAL SPECIFICATIONS**

1. The equipment for this Contract shall meet or exceed the specifications provided in this annex for each lots of the equipment schedules. The equipment covered under the Contract, including items being returned after warranty repair, shall be delivered at the locations mentioned in Task Order and at the date mentioned in Schedule of Supplies and Services (SSS).
2. This Contract shall cover one or more of the below Schedules:

Schedule A :	Standard End-User Equipment
Schedule B :	Storage Equipment
Schedule C :	Server Equipment
Schedule D :	CISCO Global Price List <sup>1</sup>
3. The specifications in the requisite Schedule(s) shall be kept up to date by the Contractor in the Product Catalogue.

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<sup>1</sup> This Global Price List (GPL) is subject to continuous changes, and is therefore maintained by Cisco directly. Schedule D scope is therefore whatever is on the Cisco GPL at the time of that particular Task Order. **With Amendment 2 to this IFB it is clarified that this only refers to the Hardware sub-categories of the Cisco GPL.**

**NATO Communications and Information Agency**



**IFB-CO-115125-e-FIT**

- Provision of -

**COTS IT  
HARDWARE AND ASSOCIATED SUPPORT**

**BOOK II - PART IV**

**STATEMENT OF WORK (SOW)**

**Schedule A – Standard End-User Equipment**  
**AMENDMENT 2**

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## SCHEDULE A – STANDARD END-USER EQUIPMENT

1.1. The equipment in this schedule includes:

- 1.1.1. Laptops/Notebooks
- 1.1.2. Workstations
- 1.1.3. Desktop PCs
- 1.1.4. Hybrids/Convertibles/Tablets
- 1.1.5. Thin Clients
- 1.1.6. Monitors/Displays
- 1.1.7. KVM Switches
- 1.1.8. Peripherals & Accessories
- 1.1.9. VOIP

### 1.2. General Dimensions and Weight

1.2.1. The dimensions and weight of the equipment listed below shall not exceed the following:

Device type	Height [cm]	Width [cm]	Depth [cm]	Weight [kg]
<b>Workstation</b>	45	20	40	10
<b>Diskless Computer</b>	15	30	40	7
<b>Thin client</b>	30	7	25	2.2
<b>Zero-client Computer</b>	10	25	25	2.2
<b>Business Laptop</b>	24	34	2.4	1.8
<b>Tablet / Two-in-One</b>	22	31	1.8 <sup>1</sup>	1.3 <sup>1</sup>

### 1.3. Alternatives due to discontinuation or non-availability or obsolescence

- 1.3.1. The Purchaser acknowledges the possibility that due to the fast moving nature of changes in technology, that at the time of contract or task order award, some of the Purchaser's requirements may be discontinued or no longer available or obsolete, thereby in need of a replacement or substitution.
- 1.3.2. With this acknowledgement, the Purchaser advises that for each item which falls under this category, the Contractor is allowed to propose an alternative (i.e. a replacement or substitution) if due to discontinuation or obsolescence or the Purchaser's original requirement is neither available nor is best suitable.
- 1.3.3. Any alternative proposed shall be: (a) same as or similar to the specification and configuration as the Agency's baseline requirement and (b) technically compliant.

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<sup>1</sup> equipped as requested, including keyboard, disk, battery

- 1.4.** The configurations and quantities of the items within the equipment listed below may change per Task Order.

## A.1 Laptop/Notebook

### A.1.1 Business Laptop - **Dell Latitude 7410**

Item	Minimum Requirements
Performance	BAPCo MobileMark 2018, Office Productivity of <b>TO BE CONFIRMED</b> BAPCo MobileMark 2018, Battery life of <b>TO BE CONFIRMED</b>
Microsoft Licences	MS Windows 10 Pro OEM 64bit no-media
Processor	Intel Core i5-10310U Cores: 4 Threads: 8
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
Power management	Support for Windows InstantGo / Connected Standby, Speed Shift Technology
Remote management	UEFI Enabled, supports Intel vPro Out of Band Management Technology
Memory	8GB, expandable to 32GB
Local storage	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
GPU	Intel Integrated UHD Graphics 620 Performance: at least <b>TO BE CONFIRMED</b> @ 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 1080p
Screen Form Factor	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%
Docking Station	Compatible with Dell Dock WD 19
Keyboard	US International QWERTY keyboard, backlit
Touchpad	Touch pad with multi-touch support Compatible with Windows Precision Touchpad Implementation
NIC	No native RJ45 (PXE enabled adapter included)
Ports	2x USB Type C™ Thunderbolt™ 3 with Power Delivery & DisplayPort 2x USB 3.2 Gen 1 with Power share 1x HDMI 2.0
Wi-Fi	Intel Wi-Fi 6 AX201, 2x2, 802.11ax
Additional Features	Integrated Webcam Integrated Microphone Array (dual microphone with noise cancellation) Bluetooth 5.0 Integrated Smartcard reader (PIV compliant) Universal audio jack (Headset Jack + microphone-in + line-in support)
Appearance	Black, or grey colour
Case	1x Notebook sleeve
Power	1x Power adapter and cord (auto sensing 110/230V) 1x Dell USB – C Power Adapter Plus - 65W (Power-In Port: AC in, Power-Out Port: 1 x DC out USB-C)
Power consumption	Up to 90W
Lock	Noble lock socket

**A.1.1.1 Dell Latitude 7410 CTO (Mobile Data Transmission)**

Compliant with A.1.1 including the following fully integrated equipment.

Item	Minimum Requirements
Mobile Data Transmission	3GPP Release 10-compatible modem supporting: <ul style="list-style-type: none"> <li>UMTS (HSPA+, DC-HSPA) - 850/900/1700/1900/2100 MHz,</li> <li>LTE-A (Cat. 4) - FDD Band 1-5/7/8/17/20</li> </ul>

**A.1.2 Rugged Notebook - Dell Latitude 7424 Rugged Extreme**

Item	Minimum Requirements
Performance	BAPCo MobileMark 2018, Office Productivity of 953 BAPCo MobileMark 2018; Battery life of 821
Microsoft Licences	MS Windows 10 Pro OEM 64bit no-media
Processor	Intel Core i7-8650U Cores: 4 Threads: 8
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
Power management	Support for Windows InstantGo / Connected Standby, Speed Shift Technology
Remote management	Supports Intel vPro Out of Band Management Technology
Memory	16GB, expandable to 32GB
Local storage	256GB PCIe NVMe Class 40 Opal 2.0 Self Encrypting Solid State Drive
GPU	Intel UHD 620 graphics + AMD Radeon RX540 graphics 128 Bit, Display Port and HDMI 1.4 video output for external display (native)
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%.
Docking Station	Compatible with Dell Dock WD 19
Keyboard	US International QWERTY keyboard, backlit
Touchpad	Touch pad with multi-touch support Compatible with Windows Precision Touchpad Implementation
NIC	1000Base-T Gigabit Ethernet (IEEE 802.3-2015) RJ45; Supports PXE
Ports	2x USB Type C™ Thunderbolt™ 3 with Power Delivery & DisplayPort 2x USB 3.2 Gen 1 with Power share 1x HDMI 2.0
Wi-Fi	Intel Wi-Fi 6 AX201, 2x2, 802.11ax
Additional Features	Integrated Webcam Integrated Microphone Array (dual microphone with noise cancellation) Bluetooth 5.0 Integrated Smartcard reader (PIV compliant) Universal audio jack (Headset Jack + microphone-in + line-in support)
Appearance	Black, or grey colour
Power	1x Power adapter and cord (auto sensing 110/230V) 1x Dell USB-C Power Adapter Plus - 65W "
Batteries	Onboard Batteries: 2x 3 Cell 51Whr ExpressCharge capable batteries.  Additional Batteries: 2x 3 Cell 51Whr ExpressCharge capable batteries.

<b>Regulatory and environmental</b>	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)
<b>Power consumption</b>	Up to 90W
<b>Lock</b>	Noble lock socket

**A.1.2.1 Rugged Notebook - Dell Latitude 7424 Rugged Extreme**

Compliant with A.1.2 including the following fully integrated equipment.

Item	Minimum Requirements
<b>Mobile Data Transmission</b>	3GPP Release 10-compatible modem supporting: <ul style="list-style-type: none"> <li>• UMTS (HSPA+, DC-HSPA) - 850/900/1700/1900/2100 MHz,</li> <li>• LTE-A (Cat. 4) - FDD Band 1-5/7/8/17/20</li> </ul>

**A.1.3 Dell Latitude 7410 CTO i7**

Item	Minimum Requirements
<b>Performance</b>	<b>BAPCo MobileMark 2018, Office Productivity of TO BE CONFIRMED</b> <b>BAPCo MobileMark 2018, Battery life of TO BE CONFIRMED</b>
<b>Microsoft Licences</b>	MS Windows 10 Pro OEM 64bit no-media
<b>Processor</b>	Intel Core <b>i7-10610U</b> Cores: 4 Threads: 8
<b>Security</b>	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
<b>Power management</b>	Support for Windows InstantGo / Connected Standby, Speed Shift Technology
<b>Remote management</b>	"UEFI Enabled, supports Intel vPro Out of Band Management Technology"
<b>Memory</b>	8GB, expandable to 32GB
<b>Local storage</b>	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
<b>GPU</b>	<b>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 1080p</b>
<b>Screen Form Factor</b>	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%
<b>Docking Station</b>	Compatible with Dell Dock WD 15, WD 19
<b>Keyboard</b>	US International QWERTY keyboard, backlit
<b>Touchpad</b>	Touch pad with multi-touch support

	Compatible with Windows Precision Touchpad Implementation
<b>NIC</b>	No native RJ45 (PXE enabled adapter included)
<b>Ports</b>	1x USB Type-C 3.1 Gen 2 port (Thunderbolt) 2x USB Type-A 3.1 Gen 1 ports
<b>Wi-Fi</b>	Intel IEEE 802.11 Dual-Band Wireless-AC 9560 Wi-Fi (vPro)
<b>Additional Features</b>	Integrated Webcam Integrated Microphone Array (dual microphone with noise cancellation) Bluetooth 5.0 Integrated Smartcard reader (PIV compliant) TRRS 3.5mm mini-jack connector
<b>Appearance</b>	Black, <b>or grey</b> colour
<b>Case</b>	<b>1x Notebook sleeve</b>
<b>Power</b>	<b>1x Power adapter and cord (auto sensing 110/230V) 1x Dell USB – C Power Adapter Plus - 65W (Power-In Port: AC in, Power-Out Port: 1 x DC out USB-C)</b>
<b>Power consumption</b>	<b>Up to 90W</b>
<b>Lock</b>	<b>Noble lock socket</b>

**A.1.4 Dell Latitude 7410 CTO i7 16GB**

Item	Minimum Requirements
<b>Performance</b>	<b>BAPCo MobileMark 2018, Office Productivity of TO BE CONFIRMED BAPCo MobileMark 2018, Battery life of TO BE CONFIRMED</b>
<b>Microsoft Licences</b>	MS Windows 10 Pro OEM 64bit no-media
<b>Processor</b>	Intel Core <b>i7-10610U</b> Cores: 4 Threads: 8
<b>Security</b>	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
<b>Power management</b>	Support for Windows InstantGo / Connected Standby, Speed Shift Technology
<b>Remote management</b>	"UEFI Enabled, supports Intel vPro Out of Band Management Technology"
<b>Memory</b>	16GB, expandable to 32GB
<b>Local storage</b>	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
<b>GPU</b>	<b>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 1080p</b>
<b>Screen Form Factor</b>	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%
<b>Docking Station</b>	<b>Compatible with Dell Dock WD 19</b>
<b>Keyboard</b>	US International QWERTY keyboard, backlit
<b>Touchpad</b>	Touch pad with multi-touch support Compatible with Windows Precision Touchpad Implementation
<b>NIC</b>	No native RJ45 (PXE enabled adapter included)
<b>Ports</b>	<b>2x USB Type C™ Thunderbolt™ 3 with Power Delivery &amp; DisplayPort 2x USB 3.2 Gen 1 with Power share 1x HDMI 2.0</b>

<b>Wi-Fi</b>	Intel Wi-Fi 6 AX201, 2x2, 802.11ax
<b>Additional Features</b>	Integrated Webcam Integrated Microphone Array (dual microphone with noise cancellation) Bluetooth 5.0 Integrated Smartcard reader (PIV compliant) Universal audio jack (Headset Jack + microphone-in + line-in support)
<b>Appearance</b>	Black, or grey colour
<b>Case</b>	1x Notebook sleeve
<b>Power</b>	1x Power adapter and cord (auto sensing 110/230V) 1x Dell USB – C Power Adapter Plus - 65W (Power-In Port: AC in, Power-Out Port: 1 x DC out USB-C)
<b>Power consumption</b>	Up to 90W
<b>Lock</b>	Noble lock socket

### A.1.5 Alienware Area 51M

Item	Minimum Requirements
<b>Processor</b>	Intel Core i9-9900K Cores: 8 Threads: 16
<b>Microsoft Licences</b>	MS Windows 10 Pro OEM 64bit no-media
<b>Memory</b>	64GB DDR4 2400MHz
<b>Local storage</b>	512GB RAID 0 (2x 256GB PCIe M.2 SSDs) + 1TB (+8GB SSHD) Hybrid Drive
<b>GPU</b>	INVIDIA GeForce RTX 2080 8GB GDDR6
<b>Screen Form Factor</b>	17.3" FHD (1920 x 1080) 60Hz Anti-Glare IPS Display
<b>Keyboard</b>	US International QWERTY keyboard, backlit
<b>Touchpad</b>	(APA) All-Points-Addressable Trackpad
<b>NIC</b>	RJ45
<b>Ports</b>	1x USB Type-C Gen 3 port (Thunderbolt) 3x USB Type-A 3.0 Gen 1 ports 1x HDMI 1x miniDP
<b>Wi-Fi</b>	Killer 1550 802.11ac 2x2 WiFi
<b>Additional Features</b>	Integrated Webcam Integrated Microphone Array (dual microphone) Bluetooth 5.0
<b>Appearance</b>	Black colour
<b>Case</b>	1x Notebook sleeve
<b>Power</b>	1x 180W Power Adapter (EU) 1x 330W Power Adapter (EU)
<b>Battery</b>	Lithium Ion (90 Wh) Battery



## A.2 Workstations

### A.2.1 Tower Workstation – Dell Precision 3630

Item	Minimum Requirements
<b>Performance</b>	BAPCo SysMark 2014, Office Productivity of 1793
<b>Microsoft Licences</b>	MS Windows 10 Pro OEM 64bit no-media
<b>Processor</b>	Intel Core i5-8500 with vPro
<b>Security</b>	Trusted Platform Module (TPM) 2.0 (or later) chip on the motherboard AES New Instructions (AES-NI), SecureKey, BIOS Guard, OS Guard or equivalent PnP and BIOS setup/boot password/system configuration protection
<b>Remote management</b>	UEFI Enabled, Intel vPro Out of Band Management Technology
<b>Memory</b>	16GB expandable to at least 64GB
<b>Local storage</b>	Solid State capacity: 512 GB, performance: 560MB/sec sequential read and 530MB/sec sequential write, durability: 600 TBW, supported functions: TCG Opal, IEEE-1667, FDE AES-256 All drives in removable cages with a key lock
<b>GPU</b>	Floating-point performance: 6.1TFlops/sec for single precision Triple Display Capable (1920x1080 Full HD at 60Hz on each display) DVI and DisplayPort 1.2 / HDMI video outputs Performance of 121 in CompuBench 1.5 Face Detection
<b>NIC</b>	1x 1000Base-T Ethernet RJ45 connector 1x 1000Base-SX -LCconnector All NICs must support PXE
<b>Wireless LAN</b>	802.11n/ac, Intel Wireless 8260 (optional available and not part of the standard configuration)
<b>External bays (Option)</b>	Cru DP27L Removable/Lockable Drive cage
<b>Appearance</b>	Black colour
<b>Sound</b>	Integrated full duplex sound card
<b>Power supply and cords</b>	1x Power adapter and cord (according to local requirements)
<b>Ports</b>	Front: 2x USB 2.0 Type A, 1x USB 3.1 Type A (5Gb) 1x USB 3.1 Type C (10Gb), data only Rear: 2x USB 2.0 Type A (with SmartPower) 4x USB 3.1 Type A (5Gb)
<b>Lock</b>	Kensington lock socket

### A.2.2 Tower Workstation – Dell Precision 3630

Item	Minimum Requirements
<b>Performance</b>	BAPCo SysMark 2014, Office Productivity of 1793
<b>Microsoft Licences</b>	MS Windows 10 Pro OEM 64bit no-media
<b>Processor</b>	Intel Core i5-8500 with vPro
<b>Security</b>	Trusted Platform Module (TPM) 2.0 (or later) chip on the motherboard AES New Instructions (AES-NI), SecureKey, BIOS Guard, OS Guard or equivalent PnP and BIOS setup/boot password/system configuration protection
<b>Remote management</b>	UEFI Enabled, Intel vPro Out of Band Management Technology
<b>Memory</b>	16GB expandable to at least 64GB
<b>Local storage</b>	Solid State capacity: 512 GB, performance: 560MB/sec sequential read

Item	Minimum Requirements
	and 530MB/sec sequential write, durability: 600 TBW, supported functions: TCG Opal, IEEE-1667, FDE AES-256 All drives in removable cages with a key lock
<b>GPU</b>	Floating-point performance: 6.1TFlops/sec for single precision Triple Display Capable (1920x1080 Full HD at 60Hz on each display) DVI and DisplayPort 1.2 / HDMI video outputs Performance of 121 in CompuBench 1.5 Face Detection
<b>NIC</b>	1x 1000Base-T Ethernet RJ45 connector 1x 100Base-FX -LCconnector All NICs must support PXE
<b>Wireless LAN</b>	802.11n/ac, Intel Wireless 8260 (optional available and not part of the standard configuration)
<b>External bays (Option)</b>	Cru DP27L Removable/Lockable Drive cage
<b>Appearance</b>	Black colour
<b>Sound</b>	Integrated full duplex sound card
<b>Power supply and cords</b>	1x Power adapter and cord (according to local requirements)
<b>Ports</b>	Front: 2x USB 2.0 Type A, 1x USB 3.1 Type A (5Gb) 1x USB 3.1 Type C (10Gb), data only Rear: 2x USB 2.0 Type A (with SmartPower) 4x USB 3.1 Type A (5Gb)
<b>Lock</b>	Kensington lock socket

## A.3 Desktop PC

### A.3.1 Desktop PC – Dell Optiplex 5070 SFF

Item	Minimum Requirements
Form Factor	SFF
Microsoft Licences	MS Windows 10 Pro OEM 64bit no-media
Performance	i5- 9500
Processor	6 cores
Graphics	Intel UHD Graphics 630, Performance: at least 917@ 1024x600 in ComputeMark v2.14, Triple Display Capable (1920x1200@60Hz on each display minimum); Compatible with DirectX 12 (Feature Level 12.0) and OpenGL 4.5; HDMI 1.4 and Displayport
Memory	8GB
Storage	Size: min. 240GB, Speed: min. 450MB/sec sequential read and min. 250MB/sec sequential write durability: 72TBW, supported functions: TCG Opal, IEEE-1667, FDE AES-256
I/O Ports	10x USB (5x 3.1 & 5x 2.0) 2x DP 1.2 1x UAJ front incl. audio jack split adapter
Network	On-board Gigabit Ethernet controller 1000Base-T (RJ-45 interface port)
Network	100Base-FX or 1000Base-SX, LC connector, Wake-On-LAN, PXE
Drive Bays	1x slim line external bay
Expansion Slots	1x PCIe x16 & 1x PCIe x4, both low profile
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
Lock	Kensington supervisor lock included
HDD cage	Optional Hard Disk Cage with Lock for 2,5" SATA Disk

### A.3.2 Desktop PC – Dell Optiplex 5070 SFF (100 Base-FX, SC)

Item	Minimum Requirements
Form Factor	SFF
Microsoft Licences	MS Windows 10 Pro OEM 64bit no-media
Performance	i5- 9500
Processor	6 cores
Graphics	Intel UHD Graphics 630, Performance: at least 917@ 1024x600 in ComputeMark v2.14, Triple Display Capable (1920x1200@60Hz on each display minimum); Compatible with DirectX 12 (Feature Level 12.0) and OpenGL 4.5; HDMI 1.4 and Displaypor
Memory	8GB
Storage	Size: min. 240GB, Speed: min. 450MB/sec sequential read and min. 250MB/sec sequential write durability: 72TBW, supported functions: TCG Opal, IEEE-1667, FDE AES-256
I/O Ports	10x USB (5x 3.1 & 5x 2.0) 2x DP 1.2 & 1x HDMI 1x UAJ front

<b>Network</b>	On-board Gigabit Ethernet controller 1000Base-T (RJ-45 interface port) 100Base-FX, SC connector, Wake-On-LAN, PXE
<b>Drive Bays</b>	1x slim line external bay
<b>Expansion Slots</b>	1x PCIe x16 & 1x PCIe x4, both low profile
<b>Security</b>	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
<b>Lock</b>	Kensington lock socket included
<b>HDD cage</b>	SFF

## A.4 Hybrids/Convertibles/Tablets

### A.4.1 Tablet - Dell Latitude 7200 2-in-1

Item	Minimum Requirements
<b>Performance</b>	BAPCo MobileMark 2014, Office Productivity of 1039 BAPCo MobileMark 2014; Battery life of 548
<b>Microsoft Licences</b>	MS Windows 10 Pro OEM 64bit no-media
<b>Processor</b>	Intel Core i5-8365U with vPro
<b>Security</b>	Trusted Platform Module (TPM) 2.0, AES New Instructions (AES-NI) , SecureKey, BIOS Guard, OS Guard or equivalent PnP and BIOS setup/boot password/system configuration protection
<b>Power management</b>	Support for InstantGo / Connected Standby, Speed Shift Technology
<b>Remote management</b>	UEFI Enabled, Intel vPro Out of Band Management Technology
<b>Memory</b>	8GB
<b>Local storage</b>	Solid State capacity: 240 GB, performance: 540MB/sec sequential read and 490MB/sec sequential write, durability: 72TBW, TCG Opal, IEEE-1667, XTS-AES 256
<b>GPU</b>	Intel HD Graphics 620, Performance: at least 926 @ 1024x600 in ComputeMark v2.14external display through 1 x USB-C to HDMI 1.4; "Compatible with DirectX 12 (Feature Level 12.0) and OpenGL 4.5"
<b>Screen</b>	12.3" diagonal size 1920 x 1280 resolution 10-point multi-touch screen Contrast 1000:1 Brightness 400 nits(auto adjustable) sRGB coverage of >=70% or CIE 1931 value of >=72%
<b>Keyboard</b>	Fully detachable keyboard and trackpad
<b>Touchpad</b>	Touch pad with multi-touch support Compatible with Windows Precision Touchpad Implementation
<b>Battery</b>	XX hours battery runtime at 200 nits web browsing
<b>Ports / USB</b>	2x USB Type-C with Thunderbolt 3/Power Delivery/DisplayPort 1x USB Type-A 3.1 Gen 1 with PowerShare
<b>Wi-Fi</b>	802.11n/ac, Intel Wireless 8265
<b>Privacy</b>	Detachable Black Privacy Filter with screen attachments
<b>Additional Features</b>	Integrated Webcam, Integrated Microphone Array (dual microphone with noise cancellation), Bluetooth 5.0 Universal Audio Jack supports Headset/Headphone/Line-out/Microphone/Line-in function, Digital- array microphonesIntegrated Smartcard reader (PIV compliant) <sup>2</sup> Integrated physical switch for radios (e.g., WIFI, Bluetooth)
<b>Appearance</b>	Metallic (Aluminium)
<b>Case</b>	Tablet sleeve
<b>Power and cord</b>	2x Power adapter and cord (auto sensing 110/230V)
<b>Docking Station or Port Replicator</b>	Must adhere to requirements listed below.

<sup>2</sup> The smartcard reader may be external if it can be mounted on the device without compromising the ergonomics of using it in the tablet mode (e.g. nested in the provided cover or sleeve).

**A.4.1.1 Tablet - Dell Latitude 7200 2-in-1 (Mobile Data Transmission)**

Compliant with A.4.1 including the following fully integrated equipment.

Item	Minimum Requirements
<b>Mobile Data Transmission (Optional)</b>	3GPP Release 10-compatible modem supporting: <ul style="list-style-type: none"> <li>• UMTS (HSPA+, DC-HSPA) - 850/900/1700/1900/2100 MHz,</li> <li>• LTE-A (Cat. 4) - FDD Band 1-5/7/8/17/20</li> </ul>

**A.4.2 Rugged Tablet - Dell Latitude 7212 Rugged Extreme**

Item	Minimum Requirements
<b>Performance</b>	BAPCo MobileMark 2014, Office Productivity of 1571, BAPCo MobileMark 2014; Battery life of 1383
<b>Microsoft Licences</b>	MS Windows 10 Pro OEM 64bit no-media
<b>Processor</b>	Intel Core i7-8650U Cores: 4 Threads: 8
<b>Security</b>	Trusted Platform Module (TPM) 2.0, AES New Instructions (AES-NI) , SecureKey, BIOS Guard, OS Guard or equivalent PnP and BIOS setup/boot password/system configuration protection
<b>Power management</b>	Support for Windows InstantGo / Connected Standby, Speed Shift Technology
<b>Remote management</b>	Supports Intel vPro Out of Band Management Technology
<b>Memory</b>	16GB
<b>Local storage</b>	256GB PCIe NVMe Class 40 Opal 2.0 Self Encrypting Solid State Drive
<b>GPU</b>	Intel Integrated UHD Graphics 620, external display through 1x USB-C to display port or HDMI (USB-C to HDMI adapter included)
<b>Screen Form Factor</b>	11,6" diagonal size; 1920 x 1080 FHD; Capacitive five-point multi-touch, glove-capable; Contrast 800:1; Brightness 600 nits (auto adjustable); sRGB coverage of >=70%.
<b>Docking Station</b>	Tablet should be able to use the docking station described below.
<b>Keyboard</b>	Fully detachable US International QWERTY keyboard and trackpad, backlit
<b>Touchpad</b>	Touch pad with multi-touch support Compatible with Windows Precision Touchpad Implementation
<b>Battery</b>	16.5 hours running time battery (web browsing at 200nits brightness using WiFi) Onboard Batteries 2x 2-cell 34 wH Lithium Ion Batteries. Additional Batteries 2x 2-cell 34 wH Lithium Ion Batteries.
<b>Ports</b>	1x mini serial RS-232, 1x USB Type-C, 1x USB 3.0
<b>Wi-Fi</b>	IEEE 802.11 n/ac, Intel Wireless Dualband Card 8265
<b>Additional Features</b>	Integrated Webcam, Integrated Microphone Array (dual microphone with noise cancellation), Bluetooth 4.2, Integrated Smartcard reader (PIV compliant), TRRS 3.5mm mini-jack connector
<b>Appearance</b>	Black colour
<b>Regulatory and environmental</b>	MIL-STD-810G testing: Transit drop (48"/1.22m; single unit; 26 drops), operating drop (36"/0.91m), blowing rain, blowing dust, blowing sand, vibration, functional shock, humidity, salt fog, altitude, explosive atmosphere, 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: -60°F to 160°F (-51°C to 71°C) IEC 60529 ingress protection18: IP-65 (dust-tight, protected against pressurized water) Hazardous locations: ANSI/ISA.12.12.01 certification capable (Class I, Division 2, Groups A, B, C,D),CAN/CSA C22.2Electromagnetic interference: MIL-STD-461F certified

<b>Power</b>	1x Power adapter and cord (auto sensing 110/230V) 1x Dell USB-C Power Adapter Plus - 65W
<b>Power consumption</b>	Up to 90W
<b>Lock</b>	Noble Wedge Lock Socket

**A.4.2.1 Rugged Tablet - Dell Latitude 7212 Rugged Extreme (Mobile Data Transmission)**

Compliant with **A.4.2** including the following fully integrated equipment.

<b>Item</b>	<b>Minimum Requirements</b>
<b>Mobile Data Transmission (Optional)</b>	Supported Cellular Technologies: LTE FDD, LTE TDD, LTE Broadcast, WCDMA (DB-DC-HSDPA, DC-HSUPA), TD-SCDMA, CDMA 1x, EV-DO, GSM/EDGE

## A.5 Thin Clients

### A.5.1 Thin-client – Dell Wyse 5070 (Windows 10 IOT)

Item	Minimum Requirements
<b>Memory</b>	4GB RAM, 64GB flash
<b>Client capabilities</b>	Dell Wyse 5070 Win10 IoT Configuration including OS license Remote desktop client 6.3.9600.16415 (supports RDP 8.1 / RemoteFX) Citrix Receiver 14.4.0.8014 with Citrix HDX Real Time Media Engine 2.0.0.41 Vmware Horizon Client 3.5.2 build-3150477
<b>Remote management</b>	Remote management with firmware update
<b>Display output</b>	Two DisplayPort 1.2 outputs Up to 1920x1200 Full HD@60Hz 32 bit colour in dual display
<b>Security</b>	TLS 1.1, Setup/boot password/system configuration protection
<b>NIC</b>	1000Base-SX or 100Base-FX, LC connector, through a replaceable module with ability to support 1000Base-T
<b>Sound</b>	Audio input and output using 3.5mm jack (TRRS)
<b>Noise emission</b>	Silent (fan-less)
<b>Appearance</b>	Black colour
<b>Power supply and cords</b>	1x Power adapter and cord (according to local requirements)
<b>Ports</b>	2 x USB 2.0 (2 on front) 5 x USB 3.0 (1x front 4x rear) 1 x USB-C 1 x RJ-45 Ethernet 1 x Serial Port 1x SFP
<b>Case</b>	VESA Mount compatible
<b>Manageability</b>	Supported remote wake-on-LAN, monitoring, control and patching All identified components installed/integrated into the system
<b>Lock</b>	Kensington lock socket
<b>Operating System</b>	Windows 10 IOT license and software installed



## A.6 Monitors/Displays

### A.6.1 Touch Screen Desktop Monitor - Dell P2418HT

Item	Minimum Requirements
Size – diagonal	23.8" screen
Contrast	1000:1
Brightness	250nits
Standards	TCO 07
Connections	Dual digital input: 1x Displayport 1.2 via HDMI to DP adapter and 1x HDMI Analogue input: 1x VGA
Touch	10 Point Multi-touch
Native refresh rate	60Hz
Horizontal/vertical viewing angle	178 degrees horizontally and vertically
Native resolution	1920x1080 (Full HD minimum) sRGB coverage of >=70% or CIE 1931 value of >=72% HDCP
Tilt and Swivel	Tilt: <b>+60deg/-5deg minimum</b>
Appearance	Black colour
Power supply and cords	1x Power adapter and cord (according to local requirements)
Cabling	1x signal cable to DisplayPort (cable length 1.5m)
Lock	Kensington lock socket

#### A.6.1.1 Touch Screen Desktop Monitor - Dell P2418HT

Compliant with A.6.1 - Tempest Level C Certified.

### A.6.2 Desktop Monitor – Dell P2419H

Item	Minimum Requirements
Size – diagonal	23.8" screen with ultrathin bezel
Contrast	1000:1
Brightness	250 nits
Standards	TCO certified Displays 7.0
Connections	Yes, 1 x VGA, 1 x HDMI, 1 x DP 1.2 standard ports
Native refresh rate	60Hz
Horizontal/vertical viewing angle	178 degrees horizontally and vertically
Native resolution	FHD resolution 1920 x 1080 with 82% sRGB coverage or CIE 1931 value of >= 72%
Speakers	Dell AC 511M Soundbar with 2x1,25 W speakers included
Tilt and Swivel	Tilt: +21deg/-5deg Swivel: 90deg
Appearance	Black colour
Power supply and cords	1x Power cord included
Cabling	1x DisplayPort cable (cable length 1.8m) included
Lock	Kensington lock slot included

**A.6.2.1 Desktop Monitor – Dell P2419H**

Compliant with A.6.2 - Tempest Level C Certified.

**A.6.2.2 Desktop Monitor – Dell P2419H**

Compliant with A.6.2 - Tempest Level B Certified.

**A.6.2.3 Desktop Monitor – Dell P2419H**

Compliant with A.6.2 - Tempest Level A Certified.

**A.6.3 Desktop Monitor – Dell P2719H**

Item	Minimum Requirements
Size – diagonal	27” screen with ultrathin bezel
Contrast	1000:1
Brightness	300 nits
Standards	TCO certified Displays 7.0
Connections	1 x VGA, 1 x HDMI, 1 x DP 1.2 standard ports
Native refresh rate	60Hz
Horizontal/vertical viewing angle	178 degrees horizontally and vertically
Native resolution	FHD resolution 1920 x 1080 with 82% sRGB coverage or CIE 1931 value of >= 72%
Tilt and Swivel	Tilt: +21deg/-5deg Swivel: -45° to 45°
Appearance	Black colour
Power supply and cords	1x Power cord included
Cabling	1x DisplayPort cable (cable length 1.8m) included
Lock	Kensington lock slot included

**A.6.4 Desktop Monitor 4K– Dell U2720Q**

Item	Minimum Requirements
Size – diagonal	27” screen with ultrathin bezel
Contrast	1300:1
Brightness	350 nits
Standards	TCO certified Displays 7.0
Connections	1 x USB-C/ Display Port, 1 x HDMI, 1 x Display Port
Native refresh rate	60Hz
Horizontal/vertical viewing angle	178 degrees horizontally and vertically
Native resolution	4K resolution 3840 x 2160 with 82% sRGB coverage or CIE 1931, value of >= 72%
Tilt and Swivel	Tilt: +21deg/-5deg Swivel: 90°
Appearance	Black colour
Power supply and cords	1x Power cord included
Cabling	1x DisplayPort cable (cable length 1.8m) included
Lock	Kensington lock slot included

**A.6.5 Desktop Monitor Curved Ultrawide – Dell U3419W**

Item	Minimum Requirements
Size – diagonal	34” screen with thin bezel

<b>Contrast</b>	1000:1
<b>Brightness</b>	300 nits
<b>Standards</b>	TCO certified Displays 7.0
<b>Connections</b>	1 x USB-C/ Display Port, 1 x HDMI, 1 x Display Port
<b>Native refresh rate</b>	60Hz
<b>Horizontal/vertical viewing angle</b>	178 degrees horizontally and vertically
<b>Native resolution</b>	WQHD resolution 1440 x 1080 with 82% sRGB coverage or CIE 1931 value of $\geq 72\%$
<b>Tilt and Swivel</b>	Tilt: +21deg/-5deg Swivel: -30° to 30°
<b>Appearance</b>	Black and Silver colour
<b>Power supply and cords</b>	1x Power cord included
<b>Cabling</b>	1x DisplayPort cable (cable length 1.8m) included

## A.7 KVM Switches

### A.7.1 1 KVM - Belkin F1DN102N-3 Single Monitor

Item	Minimum Requirements
Device	Device shall be listed in the NATO Information Assurance Product Catalogue under KVM category. Device shall not contain any non-volatile memory. Switching sources shall be manually operated, not through “hot keys” via keyboard. No automatic switching between sources shall be allowed.
Connectors	2xUSB, 2xDisplayPort, 1xHDMIPorts for 2 computers
Dimensions (not to exceed)	2.5cm x 10.9cm x 7.6cm
Cabling	Cablings for two computers and one monitor as specified in A.6, unless otherwise specified in the TO.
Tempest	Level C

### A.7.2 KVM – Belkin F1DN202KVM-UN-3 Dual Monitor

Item	Minimum Requirements
Device	Device shall be listed in the NATO Information Assurance Product Catalogue under KVM category. Device shall not contain any non-volatile memory. Switching sources shall be manually operated, not through “hot keys” via keyboard. No automatic switching between sources shall be allowed
Connectors	Ports for 2 computers and 2 monitors, Input: 4x Display Port or HDMI (combo connectors) Output: 2x Display Port or HDMI (combo connectors) 2x USB Type-A female connector (1 designated port for mouse and 1 designated port for keyboard)
Dimensions (not to exceed)	317.5 (W) x 63.5 (H) x 162.6 (L) mm
Cabling	Cablings for two computers and one monitor as specified in A.6, unless otherwise specified in the TO.
Tempest	Level C

### A.7.3 KVM-Belkin F1DN204KVM-UN-3

Item	Minimum Requirements
Device	Device shall be listed in the NATO Information Assurance Product Catalogue under KVM category. Device shall not contain any non-volatile memory. Switching sources shall be manually operated, not through “hot keys” via keyboard. No automatic switching between sources shall be allowed
Connectors	2xUSB 2 x DP 1.2a or 2 x HDMI 2.0 via combo connector ports for 4 computers
Dimensions (not to exceed)	12.5 (W) x 3.6 (H) x 6.2 (L) inches / 317.5 (W) x 91.4 (H) x 162.6 (L) mm
Cabling	Cablings for four computers and two monitors as specified in A.6, unless otherwise specified in the TO.
Tempest	Level C

**A.7.4 KVM-Belkin F1DN202KVM-UN-3**

Item	Minimum Requirements
<b>Device</b>	Device shall be listed in the NATO Information Assurance Product Catalogue under KVM category. Device shall not contain any non-volatile memory. Switching sources shall be manually operated, not through “hot keys” via keyboard. No automatic switching between sources shall be allowed
<b>Connectors</b>	2xUSB, 2 x DP 1.2a or 2 x HDMI 2.0 via combo connector ports for 2 computers
<b>Dimensions (not to exceed)</b>	12.5 (W) x 3.6 (H) x 6.2 (L) inches / 317.5 (W) x 91.4 (H) x 162.6 (L) mm
<b>Cabling</b>	Cablings for two computers and two monitors as specified in <b>A.6, unless otherwise specified in the TO.</b>
<b>Tempest</b>	<b>Level C</b>

**A.7.5 KVM-Belkin F1DN202FLP-DP-3**

Item	Minimum Requirements
<b>Device</b>	Device shall be listed in the NATO Information Assurance Product Catalogue under KVM category. Device shall not contain any non-volatile memory. Switching sources shall be manually operated, not through “hot keys” via keyboard. No automatic switching between sources shall be allowed
<b>Connectors</b>	2xUSB, 2xDisplayPort ports for 2 computers
<b>Dimensions (not to exceed)</b>	4.3 (W) x 3 (D) x 2 (H) inches / 109.2 (W) x 76.2 (D) x 50.8 (H) mm
<b>Cabling</b>	Cablings for two computers and two monitors as specified in <b>A.6, unless otherwise specified in the TO.</b>
<b>Tempest</b>	<b>Level C</b>

## A.8 Peripherals & Accessories

### A.8.1 Keyboard - Dell KB216 Multimedia Keyboard

Item	Minimum Requirements
Device	US QWERTY keyboard
Compatibility	Microsoft Windows 10 Enterprise
Connectors	USB
Additional Features	Low profile keys
Cabling	Length: 1.5m

#### A.8.1.1 Keyboard - Dell KB216 Multimedia Keyboard

Compliant with A.8.1 - Tempest Level C Certified.

#### A.8.1.2 Keyboard - Dell KB216 Multimedia Keyboard

Compliant with A.8.1 - Tempest Level B Certified.

#### A.8.1.3 Keyboard - Dell KB216 Multimedia Keyboard

Compliant with A.8.1 - Tempest Level A Certified.

### A.8.2 Ergonomic Keyboard LXM-00001

Item	Minimum Requirements
Device	Ergonomic keyboard US QWERTY
Compatibility	Microsoft Windows 10
Connectors	USB
Additional Features	Low profile keys
Cabling	Length: 1.0m

### A.8.3 Mouse - Dell 6 button Laser Mouse

Item	Minimum Requirements
Device	Optical/laser scroll mouse (5 button minimum)
Connectors	USB
Cabling	Length: 1.5m

#### A.8.3.1 Mouse - Dell 6 button Laser Mouse

Compliant with A.8.3 - Tempest Level A Certified.

#### A.8.3.2 Mouse - Dell 6 button Laser Mouse

Compliant with A.8.3 - Tempest Level B Certified.

#### A.8.3.3 Mouse - Dell 6 button Laser Mouse

Compliant with A.8.3 - Tempest Level A Certified.

**A.8.4 Ergonomic Mouse- Microsoft RJG-00002**

Item	Minimum Requirements
Device	Ergonomic optical/laser scroll mouse (5 button minimum)
Connectors	USB
Cabling	Length: 1.0m

**A.8.5 Webcam – Logitech C930e**

Item	Minimum Requirements
Device	Camera
Video	1080p30 Hardware compression to H.264 with SVC
Audio	Embedded microphone with noise cancelling Frequency response: 200Hz – 7KHz Sensitivity: -25dB
Compatibility	UVC 1.5, Skype for Business
Connectors	USB (Type A)
Security	Physical screen shutter
Mounting	Monitor mounts and freestanding
Cabling	1.8m

**A.8.5.1 Webcam – Logitech C930e**

Compliant with A.8.5 - Tempest Level C Certified.

**A.8.5.2 Webcam – Logitech C930e**

Compliant with A.8.5 - Tempest Level B Certified.

**A.8.5.3 Webcam – Logitech C930e**

Compliant with A.8.5 - Tempest Level A Certified.

**A.8.6 Smartcard Reader - Cherry JT-0100WB-2**

Item	Minimum Requirements
Device	Smartcard reader compatible with SafeNet SC650, PIV, PIV-I, Common Access Card types of smartcards following ISO/IEC 7816-2, ISO/IEC 7816-3, and ISO/IEC 7816-4 specifications
Dimensions (not to exceed)	6.5 cm x 10 cm x 1.2 cm
Connector	USB
Power	Bus

**A.8.6.1 Smartcard Reader - Cherry JT-0100WB-2**

Compliant with A.8.6 - Tempest Level C Certified.

**A.8.6.2 Smartcard Reader - Cherry JT-0100WB-2**

Compliant with A.8.6 - Tempest Level B Certified.

**A.8.6.3 Smartcard Reader - Cherry JT-0100WB-2**

Compliant with A.8.6 - Tempest Level A Certified.

**A.8.7 Headset - Plantronics Blackwire 3220 - 209745-101**

Item	Minimum Requirements
Device	Dual Headset Headphone/Microphone
Headphone Frequency Response	20 – 20,000 Hz
Microphone Frequency Response	100 – 10,000 Hz
Weight	118g
Type	On-the-ear
Connectors	USB
Cable Length	1.66m
Additional Features	Noise cancelling microphone Mute button

**A.8.7.1 Headset - Plantronics Blackwire 3220 - 209745-101**

Compliant with A.8.7 - Tempest Level C Certified.

**A.8.7.2 Headset - Plantronics Blackwire 3220 - 209745-101**

Compliant with A.8.7 - Tempest Level B Certified.

**A.8.7.3 Headset - Plantronics Blackwire 3220 - 209745-101**

Compliant with A.8.7 - Tempest Level A Certified.

**A.8.8 DECT Headset- SENNHEISER Impact DW PRO 2 ML-EU**

Item	Minimum Requirements
Device Type	DECT Headset
DECT	1.880 to 1.900 MHz (EU, UK, AUS) 1.920 to 1.930 MHz (US)
Headphone Frequency Response	150 Hz – 6.8 KHz (Wideband) 300 Hz – 3.5 KHz (Narrowband)
Noise cancellation	Ultra noise-cancelling microphone for optimal speech clarity
Microphone Frequency Response	150 Hz – 6.8 KHz (Wideband), 300 Hz – 3.5 KHz (Narrowband)
Headband	Double-sided
Weight	85 g / 2.98 oz
Additional Features	Mute button

**A.8.9 DECT Headset- SENNHEISER Impact DW Office ML-EU**

Item	Minimum Requirements
Device Type	DECT Headset
DECT	1.880 to 1.900 MHz (EU, UK, AUS) 1.920 to 1.930 MHz (US)



<b>Headphone Frequency Response</b>	150 Hz – 6.8 KHz (Wideband) 300 Hz – 3.5 KHz (Narrowband)
<b>Noise cancellation</b>	Noise-cancelling microphone for speech clarity
<b>Microphone Frequency Response</b>	150 Hz – 6.8 KHz (Wideband) 300 Hz – 3.5 KHz (Narrowband)
<b>Headband</b>	single-sided and ear hook.
<b>Weight</b>	24 g / 0.86 oz (Ear hook version) 50 g / 1.76 oz (Headband version)
<b>Additional Features</b>	Mute button

#### A.8.10 DECT Headset Adapter Cable- SENNHEISER CEHS-CI 01

Item	Minimum Requirements
<b>Device Type</b>	CISCO compatible adapter cable
<b>Compatible with</b>	Sennheiser: DW Office, DW Pro 1, DW Pro 2, D 10
<b>Compatible with</b>	CISCO:IP 6945** IP 7945G* IP 8841, IP 7821 IP 7962G* IP 8851 IP 7841 IP 7965G* IP 8861, IP 7861 IP 7975G* IP 7942G* IP 8811
<b>Connectors</b>	RJ 45 (8P8C) and RJ 9 (4P4C) to RJ 9 (4P4C) and RJ 14 (6P4C)
<b>Weight</b>	50 g / 1.75 oz
<b>Cable Length</b>	150 cm / 59.06 in

#### A.8.11 USB conference kit - Logitech 960-001057 Group

Item	Minimum Requirements
<b>Device</b>	Full HD camera and audio array USB conference kit
<b>Compatibility</b>	Skype for Business UVC 1.5
<b>Video</b>	1080p30, 90deg Field of View Autofocus, Hardware compression to H.264 with SVC
<b>Microphone</b>	Omni-directional microphone array, Frequency response: 100Hz – 10KHz, Sensitivity: -28dB
<b>Speakers</b>	Frequency response: 120Hz – 14KHz
<b>Connection</b>	USB (Type A), 6m cable
<b>Power</b>	Independently powered, Power system voltage and Power adapter and cord according to local requirements
<b>Additional Features</b>	Remote control, Wall mounting kit

#### A.8.12 Docking Station – Dell WD19

Item	Minimum Requirements
<b>Device</b>	Docking station for business laptop (see 9.3) and tablet (9.6)
<b>Interface to Client Device</b>	USB 3.1 Gen 2 Type C interface to the client including Charging
<b>Display Interfaces</b>	3x Display outputs: 2x DisplayPort 1.2, 1 x HDMI 1.4
<b>Other Interfaces</b>	1x TRRS 3.5mm mini-jack connector, 1x TRS 3.5mm mini-jack connector, 1x RJ45 port, 3x USB 3.0 ports, 2x USB 3.1 USB-C ports
<b>Weight</b>	1.5 Kg without power supply
<b>Dimensions</b>	20.5 cm x 9cm x 29cm

Item	Minimum Requirements
Power	1x Power adapter and cord (according to local requirements – see section 5.5.3.8)

**A.8.13 Docking Station- Dell WD19TB (180 Watt Thunderbolt)**

Item	Minimum Requirements
Device	Docking station for business laptop (see 9.3) and tablet (9.6)
Interface to Client Device	USB 3.1 Gen 2 Type C interface to the client including charging
Display Interfaces	3x Display outputs: 2x Display Port 1.4, 1x HDMI 2.0 Thunderbolt 3
Other Interfaces	1x TRRS 3.5mm mini-jack connector, 1x TRS 3.5mm mini-jack connector, 1x RJ45 port, 3x USB-A 3.1 Gen 1, 2x USB-C 3.1 Gen 2
Power	1x Power adapter and cord (according to local requirements – see section 5.5.3.8)

**A.8.14 Universal Power Supply Filter - TEMPEST Universal Power Supply Filter, 3 outlets**

Item	Minimum Requirements
Device	RFI Power Supply Filter, ~110V / ~230V, three outlets with external PSU (according to local requirements), Electricity filtering in accordance with SDIP-27
Power	1x Power connector and cord (according to local requirements)
Security	Electricity filtering in accordance with SDIP-27

**A.8.14.1 Universal Power Supply Filter - TEMPEST Universal Power Supply Filter, 3 outlets**

Compliant with A.8.14 – EU Power Socket Compatibility.

**A.8.14.2 Universal Power Supply Filter - TEMPEST Universal Power Supply Filter, 3 outlets**

Compliant with A.8.14 – UK Power Socket Compatibility.

**A.8.14.3 Universal Power Supply Filter - TEMPEST Universal Power Supply Filter, 3 outlets**

Compliant with A.8.14 – US Power Socket Compatibility.

**A.8.15 Mobile Device Protection - Targus TAR300**

Item	Minimum Requirements
Device	1x Nylon carrying case able to hold one Business Laptop or one Tablet / Two-in-one and in addition: Mouse, Smartcard Reader, Headset, External Optical Drive and Powerbank
Security	Main compartment must be lockable
Additional Features	Optional: Backpack variant - CN31 Targus Classic Backpack 15,6", Black

**A.8.16 Anti-theft cable with Kensington socket**

Item	Minimum Requirements
Device	Kensington technology anti-theft cable
Length	Not less 1.7m

**A.8.17 Anti-theft cable with Noble socket**

Item	Minimum Requirements
Device	Noble technology anti-theft cable
Length	Not less 1.7m

**A.8.18 Fiber Optic Patch Cords****A.8.18.1** Fibre optic patch-cords

Item	Minimum Requirements
Cable type	Fibre-optic, flexible OM1 62,5/125 $\mu$
Colour	Cables should be available at least in the following colours: Grey, Orange, Red, Blue, Yellow
Length	2M
Client device-side connector	As offered with the workstation, Diskless Computer, Thin Client and Zero-client Computer
Wall outlet-side connector	Options: LC, ST, MTRJ, SC

**A.8.18.2** Fibre optic patch-cords

Identical to A.8.18.1 – but 5M length

**A.8.18.3** Fibre optic patch-cords

Identical to A.8.18.1 – but 10M length

**A.8.18.4** Fibre optic patch-cords

Item	Minimum Requirements
Cable type	Fibre-optic, flexible OM2 50/125 $\mu$
Colour	Cables should be available at least in the following colours: Grey, Orange, Red, Blue, Yellow
Length	2M
Client device-side connector	As offered with the workstation, Diskless Computer, Thin Client and Zero-client Computer
Wall outlet-side connector	Options: LC, ST, MTRJ, SC

**A.8.18.5** Fibre optic patch-cords

Identical to A.8.18.4 – but 5M length

**A.8.18.6 Fibre optic patch-cords**

Identical to A.8.18.4 – but 10M length

**A.8.19 Copper patch-cords**

Item	Minimum Requirements
<b>Cable type</b>	Copper, S/FTP, flexible, Cat6a
<b>Colour</b>	Cables should be available at least in the following colours: Grey, Orange, Red, Blue, Yellow
<b>Length</b>	Options: 2m, 5m, 10m
<b>Client device-side connector</b>	As offered with the workstation, Diskless Computer, Thin Client and Zero-client Computer
<b>Wall outlet-side connector</b>	RJ45

**A.8.19.1 Copper patch-cords**

Identical to A.8.19 – but 5M length

**A.8.19.2 Copper patch-cords**

Identical to A.8.19 – but 10M length

**A.8.20 HDMI to HDMI cable**

Item	Minimum Requirements
<b>Cable type</b>	High Speed HDMI Cable
<b>Connectors</b>	HDMI male (Type A) to HDMI male (Type A)
<b>Colour</b>	Black
<b>Length</b>	2m

**A.8.21 Dell USB – C Power Adapter Plus - 65W**

Item	Minimum Requirements
<b>Device type</b>	Power adapter
<b>Color</b>	Black
<b>Connectivity</b>	Power-In Port: AC in, Power-Out Port: 1 x DC out USB-C
<b>DC Port</b>	20V/5V, 2.25A/3A
<b>USB Port</b>	5v, 1A

**A.8.22 Dell Adapter USB-C to HDMI 2.0**

Item	Minimum Requirements
<b>Device type</b>	USB-C to HDMI 2.0 Adapter
<b>Color</b>	Black
<b>Max video resolution</b>	4K × 2K at 60Hz
<b>HDCP Support</b>	Yes

**A.8.23 Dell Adapter USB-C to DisplayPort**

Item	Minimum Requirements
Device type	USB-C to DisplayPort
Color	Black
Max video resolution	4096 x 2160
HDCP Support	Yes

**A.8.24 USB-C to Ethernet Adapter**

Item	Minimum Requirements
Device	USB-C to Ethernet Adapter
Interface Type	USB-C
Ports	1x Gigabit Ethernet
Data Link Protocol	10Mb LAN, 100Mb LAN, GigE
Data Transfer Rate	1000 Mbps, PXE Supported

**A.8.25 Dell Active Pen-PN557W**

Item	Minimum Requirements
Device type	Active Stylus Pen
Color	Black
Supported OS	Windows 8.1, Windows 10

**A.8.26 Socket Extension**

Item	Minimum Requirements
Device type	Socket Extension, EU standard
Cord length	1,4 m cord
Number of sockets	6

**A.8.26.1 Socket Extension**

Identical to 8.26, but UK standard

**A.8.26.2 Socket Extension**

Identical to 8.26, but US standard

**A.8.27 Power cord 230v**

Item	Minimum Requirements
Device type	Power Cord 230 V EU standard
Cord length	2m cord
Number of sockets	1

**A.8.27.1 Power Cord 230v**

UK standard, plus power cord 230 V BS 1363 (Type G), 2m length.

**A.8.27.2 Power Cord 230v**

US standard, plus power cord 110 V US standard, 1,8 m length

**A.8.28 Removable Storage Media- iStorage Datashur Pro**

Encrypted USB RSM	Minimum Requirements
Capacity	Encrypted USB RSM
USB Standard	4GB
Ingress Protection Certification	IP57
Bootable	Yes
Encryption	AES-256 bit hardware encryption – no software required

**A.8.29 External USB HDDs – Seagate Backup Plus Hub 8 TB HDD**

Item	Minimum Requirements
External USB HDDs	8TB USB 3.0 5Gbps / 160 MB/s.

**A.8.30 External USB Slim DVD Drive - Dell DW316**

Item	Minimum Requirements
Interface	USB 2.0
Read speed	24x (CD) / 8x (DVDB)
Write speed	24x (CD) / 8x (DVD±R) / 6x (DVD±R DL)
Rewrite speed	24x (CD) / 6x (DVD-RW) / 8x (DVD+RW) / 5x (DVD-RAM)
Buffer underrun protection	Automatic buffer underrun protection technology

**A.8.31 Label Printer - Dymo label writer 450 Turbo**

Label Printer	Minimum Requirements
Connectivity	USB
Max label width	56mm
Print technology	Thermal
Cutting mechanism	Automatic
Speed	71mm/s
Print resolution	600 x 300
Power supply and cords	1x Power adapter and or cord (according to local requirements)

**A.8.31.1 Label Printer - Dymo label writer 450 Turbo EU**

Identical to A.8.31, Label Printer EU for 280 items - EU power cord min. 1,8 m

**A.8.31.2 Label Printer - Dymo label writer 450 Turbo UK**

Identical to A.8.31, Label Printer for 10 items - UK (BS 1363) power cord min. 1,8 m

**A.8.31.3 Label Printer - Dymo label writer 450 Turbo US**

Identical to A.8.31, Label Printer for 10 items - US (NEMA 1-15) power cord min. 1,8m

**A.8.32 Dual Monitor desk mount - NewStar FPMA-D950D**

Item	Minimum Requirements
Supported number of monitors	2
Colour	White
Supported flatscreen weight	>= 8kg
Flexibility	Pan/tilt/roll (rotate), back, forward: independent per arm
Supported screen size	10 - 27 "
Type of mount	Desk
Supported desk thickness	6 cm
Roll (rotate) range	360 degrees
VESA standard	100x100mm, 75x75mm
VESA Adapter	Yes
Cable Management	Yes

**A.8.32.1 Dual Monitor desk mount - NewStar FPMA-D950D**

Identical to A.8.35, but black

**A.8.32.2 Dual Monitor desk mount - NewStar FPMA-D950D**

Identical to A.8.35, but silver

**A.8.33 Media Converters**

**A.8.33.1 Media Converter 1**

Item	Minimum Requirements
Media Converters	Media Converter to 100Base-FX

**A.8.33.2 Media Converter 2**

Item	Minimum Requirements
Media Converters	Media Converter to 1000Base-SX

**A.8.34 Projector - LG PH 550G**

Item	Minimum Requirements
Size – diagonal	25" ~100"
Contrast	100.000:1
Brightness	550 ANSI-Lumen
Connections	Input: HDMI, VGA, USB Outputs: 3.5mm Audio, Bluetooth audio out
Projection ratio	1,4:1
Lamp Type	LED
Lamp Life	Up to 30,000 hours

<b>Native resolution</b>	1280x720 (HD minimum), Aspect Ratio 16:9/4:3 minimum
<b>Speakers</b>	integrated
<b>Max fan sound level</b>	< 30 db
<b>Power supply and cords</b>	Embedded battery / Power system voltage and Power adapter and cord according to local requirements. US and UK power cables may differ in color from power adapter
<b>Cabling</b>	1x HDMI (cable length 1.5m)
<b>Accessories</b>	Remote Control
<b>Optional</b>	Screen share with WiDi compatible devices
<b>Battery</b>	Built-in, max 2.5 hrs operating time
<b>Dimensions (mm)/Weight</b>	Max WxDxH - 174x116x44 / 650g

#### A.8.35 Projector - LG PH 450UG Short Throw

Item	Minimum Requirements
<b>Size – diagonal</b>	40" ~80"
<b>Contrast</b>	100.000:1
<b>Brightness</b>	450 ANSI-Lumen
<b>Connections</b>	Input: HDMI, VGA, USB
	Outputs: 3.5mm Audio, Bluetooth audio out
<b>Projection ratio</b>	0.29:1
<b>Lamp Type</b>	LED
<b>Lamp Life</b>	Up to 30,000 hours
<b>Native resolution</b>	1280x720 (HD minimum) Aspect Ratio 16:9/4:3 minimum
<b>Speakers</b>	integrated
<b>Max fan sound level</b>	< 30 db
<b>Power supply and cords</b>	Embedded battery / Power system voltage and Power adapter and cord according to local requirements. US and UK power cables may differ in color from power adapter.
<b>Cabling</b>	1x HDMI (cable length 1.5m)
<b>Accessories</b>	Remote Control
<b>Optional</b>	Screen share with WiDi compatible devices
<b>Battery</b>	Built-in, max 2.5 hrs operating time
<b>Dimensions/Weight</b>	Max LxWxH - 11x18x5 /1.1kg

#### A.8.36 Personal audio conference speaker - Jabra Speak 510+MS

Item	Minimum Requirements
<b>Connectivity</b>	USB, Bluetooth
<b>Compatible with Skype for business</b>	Yes
<b>Microphone</b>	Built-in omnidirectional
<b>DSP technology</b>	Yes
<b>Wideband Audio</b>	Yes
<b>Built-in rechargeable battery</b>	Yes, USB chargeable, 15 hours operation on battery

#### A.8.37 Screen privacy filter - Dicota D30895 (4 Way Privacy)

Item	Minimum Requirements
<b>Compatible screen size</b>	14.0"



<b>Characteristics</b>	Protected view from all four sides (left/right and top/bottom), High scratch resistance Attaches easily without forming bubbles No residue when removed Touchscreen Compatible
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### A.8.38 Desktop Speaker System

#### A.8.38.1 2.0 Desktop Speaker System-Dell AE215

Item	Minimum Requirements
Connectivity	USB
Power Supply	USB
Output Power	5 Watt
Frequency Response	80-20000 Hz
Speaker Type	Active/ integrated amplifier
Color	Black

#### A.8.38.2 2.0 Desktop Speaker System-Dell AE215

Compatible with A.8.38.1, but with Tempest Level C Certification.

### A.8.39 1000 Base SX Network Card Kit

Item	Minimum Requirements
Bus Type Internal	PCI Express x1, V2.1
Bus Type External (SFP Slot)	1 Gbps SFP module
Data transfer rate	Gigabit Ethernet up to 1 Gbps
Mounting Bracket	Low-profile and standard height brackets included
Item (SFP module)	Specification
Data transfer rate	Gigabit Ethernet up to 1 Gbps
Fiber Connection	LC multi-mode female

### A.8.40 Mobile Adapter Dell DA300

Item	Minimum Requirements
Device	USB-C Mobile Adapter DA300
Docking Interface	USB-C
Video Interfaces	1x VGA, 1x HDMI, 1x DP
USB Interfaces	1 x USB, 1 x USB-C
Network Interface	Ethernet 1000 - RJ-45
Power	USB powered

## A.9 Printers, Plotters, DVD Robot

### A.9.1 A4 Multifunction Printer HP Color LaserJet Pro M281FDN

Item	Minimum Requirements
Scan resolution	Colour: 1200 x 1200 dpi
Printing and scanning size	A4 printing and scanning
Print resolution	Colour: 600 x 600 dpi
Scan resolution	1200 x 1200 ppi optical
Copy resolution	600 x 600 dpi
Paper capacity	input tray supporting 150 sheets of plain paper
Speed	A4 black: up to 20 ppm, A4 color: Up to 16 ppm, Copy speed: up to 20 copies per minute, Scan speed: Up to 7pppm (b&w), up to 5 ppm (color)
Network	Gigabit Ethernet 10/100/1000T, TCP, IP, SLP, LPD, SNMP
Features	Single Pass, Scan to Email, Multi Copy Feature, Auto Duplex, Access Control at Printer

### A.9.2 A3 Printer – HP LaserJet Colour Enterp. Flow MFP M880z

Item	Minimum Requirements
Type	Multi-Function Device – printing, scanning, copying
Scan resolution	Colour: Up to 600 x 600 dpi
Printing and scanning size	A3 (printing), A4 (scanning)
Print resolution	Colour: Up to 1200 x 1200 dpi
Paper capacity	3 x trays supporting A3 and A4, 500 sheets each
PDL	PCL5E/C, PCL6, XPS, PostScript
Fonts	PCL/PS
Speed	A3 colour: Up to 22 ppm
	A4 duplex: Up to 43 ppm
Network	1 x Gigabit Ethernet 10/100/1000T; TCP/IP/SMP,LPD,SNMP support
Features	Single pass, Scan to email, Multi-copy feature, Auto duplex Access Control at Printer

### A.9.3 Plotter/Scanner – HP DesignJet T830 A0 MFP Plotter

Item	Minimum Requirements
Printing size	11" to 36" (279 to 914 mm)
Print resolution	Color: Up to 2400 x 1200 optimized dpi
Scan resolution	600 x 600 DPI
Scan size	max 36 x 109 in, min 5 x 5 in
Scanner type	Sheetfed, CIS (Contact Image Sensor)
Media Types	Bond and coated paper (bond, coated, heavyweight coated, recycled, plain, bright white), technical paper (natural tracing, vellum), film (clear, matte), photographic paper (satin, gloss, semigloss, premium, polypropylene), self-adhesive (adhesive, polypropylene)
Media Sizes	8.3 to 36-in wide sheets, 11 to 36-in rolls (Input tray: 8.3 x 11 to 13 x 19 in, manual feed: 13 x 19 to 36 x 74.7 in, roll: 11 to 36 in)
PDL	TIFF, JPEG, CALS G4, HP-GL/2, HP-RTL, URF

<b>Speed</b>	25 sec/page
<b>Interfaces</b>	Gigabit Ethernet (1000Base-T), Wi-Fi 802.11b/g/n, Wi-Fi Direct, USB Type-A host port
<b>Features</b>	Sheet feed, roll feed, input tray, media bin, automatic cutter

#### A.9.4 Plotter – HP DesignJet T525

<b>Item</b>	<b>Minimum Requirements</b>
<b>Printing size</b>	11" to 24" (279 to 610 mm)
<b>Print resolution</b>	Color: Up to 2400 x 1200 optimized dpi
<b>Paper capacity</b>	Sheet feed, roll feed and input tray
<b>PDL</b>	HP-GL/2, HP-RTL, JPEG, CALS G4
<b>Speed</b>	35 sec/page
<b>Interfaces</b>	Fast Ethernet (100Base-T), Hi-Speed USB 2.0 certified
<b>Features</b>	Sheet feed, roll feed, input tray, media bin, automatic cutter

#### A.9.5 DVD Robot – Hurricane

<b>Item</b>	<b>Minimum Requirements</b>
<b>Features</b>	Bulk CD/DVD burning and label printing
<b>Disc Capacity</b>	125
<b>Number of drives</b>	2
<b>Disc Recorders</b>	CD/DVD burners
<b>Recordable Formats</b>	DVD-5, DVD-Video, DVD-ROM, DVD-Audio, DVD-R, DVD-RW, DVD+R, DVD+RW, Dual Layer, CD-ROM Mode 1, CD-ROM Mode 2, CD-ROM/XA (mode 2 form 1 & form 2), CD-DA (Audio CD), MixedMode CD, Video CD, CD-I, Karaoke CD, Photo CD (single session & multisession), HFS, ISO 9660, CD-Bridge, CD-Extra, CD+G, ISRC, multisession, name-card CD, 21 min CD, 63 min cd, 74 min CD, 80 min CD, CD-R, CD-RW, MP3 to Audio CD
<b>Print method</b>	Inkjet
<b>Print resolution</b>	400 dpi
<b>Data interface</b>	Gigabit Ethernet (1000Base-T), via integrated PC
<b>Power</b>	100-240VAC

**NATO Communications and Information Agency**



**IFB-CO-115125-e-FIT**

- Provision of -

**COTS IT  
HARDWARE AND ASSOCIATED SUPPORT**

**BOOK II - PART IV**

**STATEMENT OF WORK (SOW)**

**Schedule B – Storage Equipment  
AMENDMENT 2**

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B.95 Dell Networking S4048-ON, 48x 10GbE SFP+ and 6x 40GbE QSFP+ ports, IO to PSU  
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B.96 Dell Networking Cable, QSFP+, 40GbE Active Optical (no optics required), 3 Meters,  
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B.97 Dell Networking S4048-ON, 48x 10GbE SFP+ and 6x 40GbE QSFP+ ports, IO to PSU  
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B.98 Dell Networking S3124F, L3, 24x 1GbE SFP, 2xCombo, 2x 10GbE SFP+ fixed ports,  
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B.99 Dell Networking S3148P, L3, PoE+, 48x 1GbE, 2x Combo, 2x 10GbE SFP+ fixed ports,  
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## **SCHEDULE B – STORAGE EQUIPMENT**

- 1.1.** The equipment in this schedule contains SAN (Storage Area Network) Equipment, and includes the following items:
  - 1.1.1.** DAS (Direct Attached Storage) Arrays
  - 1.1.2.** Tape Storage
  - 1.1.3.** Optical Storage
  - 1.1.4.** Backup Solutions
  - 1.1.5.** Removable/portable storage equipment
- 1.2. Alternatives due to discontinuation or non-availability or obsolescence**
  - 1.2.1.** The Purchaser acknowledges the possibility that due to the fast moving nature of changes in technology, that at the time of contract or task order award, some of the Purchaser's requirements may be discontinued or no longer available or obsolete, thereby in need of a replacement or substitution.
  - 1.2.2.** With this acknowledgement, the Purchaser advises that for each item which falls under this category, the Contractor is allowed to propose an alternative (i.e. a replacement or substitution) if due to discontinuation or obsolescence or the Purchaser's original requirement is neither available nor is best suitable.
  - 1.2.3.** Any alternative proposed shall be: (a) same as or similar to the specification and configuration as the Agency's baseline requirement and (b) technically compliant.
- 1.3.** The configurations and quantities of the items within the equipment listed below may change per Task Order.



**B.1 Entry-Level SAN (HPE MSA)**

**B.1.1 Entry-Level SAN: HPE MSA 2050 SAN Dual Controller SFF Storage**

#	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
<b>HPE MSA 2050</b>			
1	Part Number: Q1J01A	HPE MSA 2050 SAN Dual Controller SFF Storage	1
2	Part Number: J9F48A	HP MSA 1.2TB 12G SAS 10K SFF(2.5in) Dual Port Enterprise	4
3	J9F48A 0D1	Factory Integrated	4
4	Part Number: N9X95A	HPE MSA 400GB 12G SAS Mixed Use SFF (2.5in); 3yr Warranty Solid St	5
5	Part Number: N9X95A 0D1	Factory Integrated	5
6	Part Number: Q1J06A	HPE MSA 2050 LFF Disk Enclosure	1
7	Part Number: Q1J06A 0D1	Factory Integrated	1
8	Part Number: M0S90A	HP MSA 8TB 12G SAS 7.2K 3.5in 512e HDD	12
9	Part Number: M0S90A 0D1	HP MSA 8TB 12G SAS 7.2K LFF (3.5in) 512e	12
10	Part Number: C8R23B	HPE MSA 8Gb Short Wave Fibre Channel SFP+4	1
11	Part Number: C8R25B	HPE MSA 10Gb Short Range iSCSI SFP+ 4-pack Transceiver	1
12	Part Number: C8R25B 0D1	Factory Integrated	1
13	Part Number: QW938A	HP SN3000B 24/24 FC Switch	1
14	Part Number: QW938A 05Y	2.4m Jumper (IEC320 C13_C14, M_F CEE 22)	1
15	Part Number: AJ716B	HPE 8Gb Shortwave B-series Fibre Channel 1 Pack SFP + Transceiver	24
16	Part Number: AJ716B 0D1	HP 8Gb Shortwave B-series Fibre Channel 1 Pack	24
17	Part Number: QW939A	HP SN3000B Optional Power Supply	1
18	Part Number: QW939A 05Y	2.4m Jumper (IEC320 C13_C14, M_F CEE 22)	1
19	Part Number: AJ835A	HP 2m Multi-mode OM3 LC/LC FC Cable	4
20	Part Number: AJ836A	HP 5m Multi-mode OM3 LC/LC FC Cable	2
21	Part Number: H7J33A3	HP 3yr Foundation Care NBD w DMR Service	1
22	Part Number: H7J33A3 RC0	HPE MSA 2050 Storage Support	1
23	Part Number: H7J33A3 9LJ	HPE B-Series 8 8 and 8 24 Switch Support	1
24	Part Number: H7J33A3 RC2	HPE MSA 2050 Disk Enclosure Support	1
25	Part Number: HA113A1	HP Installation Service	1
26	Part Number: HA113A1 5J0	HPE P2000 MSA System Installation SVC	1
27	Part Number: HA113A1 5GA	HP Installation - UPM 4-Port Upgrade Kit	1

**B.1.2 Option for MSA SAN: HPE MSA 2050 LFF Disk Enclosure DRE**

#	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
<b>HPE MSA 2050 LFF Disk Enclosure</b>			
1.	Part Number:Q1J06A	HPE MSA 2050 LFF Disk Enclosure	1
2.	Part Number: M0S90A	HP MSA 8TB 12G SAS 7.2K 3.5in 512e HDD	12
3.	Part Number: M0S90A 0D1	HP MSA 8TB 12G SAS 7.2K LFF (3.5in) 512e	12
4.	Part Number: H7J33A3	HP 3yr Foundation Care NBD w DMR Service	1
5.	Part Number: H7J33A3 RC2	HPE MSA 2050 Disk Enclosure Support	1
6.	Part Number: HA113A1	HP Installation Service	1
7.	Part Number: HA113A1 5P2	HPE Install MSA2000 Service	1

<sup>1</sup> Quantity of sub-elements needed for full configuration. This applies throughout the entire Schedule.

### B.1.3 Option for MSA SAN: HPE MSA 2050 SFF Disk Enclosure

#	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
<b>HPE MSA 2050 SFF Disk Enclosure</b>			
1.	Part Number: Q1J07A	HPE MSA 2050 SFF Disk Enclosure	1
2.	Part Number: J9F48A	HP MSA 1.2TB 12G SAS 10K SFF(2.5in) Dual Port Enterprise	14
3.	Part Number: J9F48A 0D1	Factory Integrated	14
4.	Part Number: N9X95A	HPE MSA 400GB 12G SAS Mixed Use SFF (2.5in) 3yr Warranty Solid St	10
5.	Part Number: N9X95A 0D1	Factory Integrated	10
6.	Part Number: H7J33A3	HP 3yr Foundation Care NBD w DMR Service	1
7.	Part Number: H7J33A3 RC2	HPE MSA 2050 Disk Enclosure Support	1
8.	Part Number: HA113A1	HP Installation Service	1
9.	Part Number: HA113A1 5P2	HPE Install MSA2000 Service	1

### B.1.4 Option for MSA SAN: HPE MSA 2050 LFF Disk Enclosure

#	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
<b>HPE MSA 2050 LFF Disk Enclosure</b>			
1.	Part Number: Q1J06A	HPE MSA 2050 LFF Disk Enclosure	1
2.	Part Number: M0S90A	HP MSA 8TB 12G SAS 7.2K 3.5in 512e HDD	12
3.	Part Number: M0S90A0D1	HP MSA 8TB 12G SAS 7.2K LFF (3.5in) 512e	12
4.	Part Number: H7J33A3	HP 3yr Foundation Care NBD w DMR Service	1
5.	Part Number: H7J33A3RC2	HPE MSA 2050 Disk Enclosure Support	1
6.	Part Number: HA113A1	HP Installation Service	1
7.	Part Number: HA113A15P2	HPE Install MSA2000 Service	1

## B.2 Entry-Level SAN (HPE 3PAR)

### B.2.1 Entry-Level SAN: HP 3PAR StoreServ 8400 2N

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
HP 3PAR StoreServ 8400 2N, Rack Mount, 3.6TB SAS SFF SSD RAW, 96TB 7.2K SAS RAW; Dual Power Supply, 16GB x 48 Port FC Switch licenced, c/w Cables, Warranty 3yr On-site, Next Business Day				
1.	SAN Unit	H6Y96A	HP 3PAR StoreServ 8400 2-node Field Integrated Storage Base	1
2.	SSD	N9Y06A	HP 3PAR StoreServ 8000 480GB SAS MLC SFF(2.5in) Solid State Drive	5
3.		N9Y06A 0D1	Factory integrated	5
4.		L7B69A	HP 3PAR 8400 Operating System Suite Base LTU	1
5.		L7B69A 0D1	Factory integrated	1
6.		L7B70A	HP 3PAR 8400 Operating System Suite Drive LTU	34
7.		L7B70A 0D1	Factory integrated	34
8.		L7B71A	HP 3PAR 8400 Data Optimization Suite v2 Base LTU	1

9.		L7B71A 0D1	Factory integrated	1
10.		L7B72A	HP 3PAR 8400 Data Optimization Suite v2 Drive LTU	34
11.		L7B72A 0D1	Factory integrated	34
12.	HDD	E7Y71A	HP 3PAR StoreServ 8000 SFF(2.5in) Field Integrated SAS Drive Encl	2
13.	SSD	N9Y06A	HP 3PAR StoreServ 8000 480GB SAS MLC SFF(2.5in) Solid State Drive	5
14.		N9Y06A0D1	Factory integrated	5
15.		E7Y72A	HP 3PAR StoreServ 8000 LFF(3.5in) Field Integrated SAS Drive Encl	2
16.		K2P87A	HP 3PAR StoreServ 8000 4TB SAS 7.2K LFF(3.5in) Hard Drive	24
17.		K2P87A / 0D1	HP 3PAR StoreServ 8000 4TB SAS 7.2K LFF(3.5in) Hard Drive FIO	24
18.		HA114A1	HP Installation and Startup Service	1
19.		HA114A1 / 5XV	HP Startup 3PAR 84XX 2N Fld Int Base SVC	1
20.		HA114A1 / 5XZ	HP Startup 3PAR 8000 Fld Int Drv Enc SVC	4
21.		BD362AAE	HP 3PAR StoreServ Mgmt/Core SW E-Media	1
22.		BD363AAE	HP 3PAR 7000/7450 OS Suite E-Media	1
23.		H1K93A3	HP 3Y4hr 24x7 w DMR Proactive Care SVC	1
24.		H1K93A3 / WSF	HP 3PAR Internal Entitlement Purpose	2
25.		H1K93A3 / YT9	HP 3PAR StoreServ 8400 2N Base Supp	1
26.		H1K93A3 / YTJ	HP 3PAR 8000 Drive Encl Supp	4
27.		H1K92A3XEO	HP 3PAR 8000 480GB MLC SFF SSD Supp	10
28.		H1K93A3 / YU6	HP 3PAR 8000 4TB 7.2K LFF HDD Supp	24
29.		H1K93A3 / YV1	HP 3PAR 8400 OS Suite Base Supp	1
30.		H1K93A3 / YV2	HP 3PAR 8400 OS Suite Drive Supp	34
31.		H1K93A3 / YV3	HP 3PAR 8400 Data Opt St v2 Base Supp	1
32.		H1K93A3 / YV4	HP 3PAR 8400 Data Opt St v2 Drive Supp	34

**B.2.2 Entry Level SAN: HPE 3PAR StoreServ 8400 2N 20TB RAW**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.		H6Y96A	HP 3PAR StoreServ 8400 2- node Field Integrated Storage Base	1
2.		M0S92A	HPE 3PAR StoreServ 8000 2TB SAS 7.2K SFF	10
3.		M0S92A 0D1	HP 3PAR StoreServ 8000 2TB SAS 7.2K SFF	10
4.		K2Q95A	HP 3PAR StoreServ 8000 480GB SAS MLC SFF(2.5in) Solid State Drive	2
5.		K2Q95A 0D1	HP 3PAR StoreServ 8000 480GB SAS MLC SFF	2
6.		L7B69A	HP 3PAR 8400 Operating System Suite Base LTU	1
7.		L7B69A 0D1	HP 3PAR 8400 Operating System Suite Base FIO	1
8.		L7B70A	HP 3PAR 8400 Operating System Suite Drive LTU	24
9.		L7B70A 0D1	HP 3PAR 8400 Operating System Suite Drive FIO	24
10.		L7B71A	HP 3PAR 8400 Data Optimization Suite v2 Base LTU	1
11.		L7B71A 0D1	HP 3PAR 8400 Data Optimization Suite v2 Base	1
12.		L7B72A	HP 3PAR 8400 Data Optimization Suite v2 Drive LTU	24
13.		L7B72A 0D1	HP 3PAR 8400 Data Optimization Suite v2 Drive	24

14.		E7Y71A	HP 3PAR StoreServ 8000 SFF(2.5in) Field Integrated SAS Drive Encl	1
15.		M0S92A	HPE 3PAR StoreServ 8000 2TB SAS 7.2K SFF	10
16.		M0S92A 0D1	HP 3PAR StoreServ 8000 2TB SAS 7.2K SFF	10
17.		K2Q95A	HP 3PAR StoreServ 8000 480GB SAS MLC SFF(2.5in) Solid State Drive	2
18.		K2Q95A 0D1	HP 3PAR StoreServ 8000 480GB SAS MLC SFF	2
19.		HA114A1	HP Installation and Startup Service	1
20.		HA114A1 5XV	HPE Startup 3PAR 84XX 2N Fld Int Bas SVC	1
21.		HA114A1 5XZ	HP Startup 3PAR 8000 Fld Int Drv Enc SVC	1
22.		BD362AAE	HP 3PAR StoreServ Mgmt/Core SW E-Media	1
23.		BD363AAE	HP 3PAR 7000/7450 OS Suite E-Media	1
24.		H1K93A3	HP 3Y 4 hr 24x7 w DMR Proactive Care SVC	1
25.		H1K93A3 WSF	HP 3PAR Internal Entitlement Purpose	2
26.		H1K93A3 YT9	HP 3PAR StoreServ 8400 2N Base Supp	1
27.		H1K93A3 YTJ	HP 3PAR 8000 Drive Encl Supp	1
28.		H1K93A3 YTY	HPE 3PAR 8000 480GB SFF SSD Supp	4
29.		H1K93A3 YU4	HP 3PAR 8000 2TB 7.2K SFF HDD Supp	20
30.		H1K93A3 YV1	HP 3PAR 8400 OS Suite Base Supp	1
31.		H1K93A3 YV2	HPE 3PAR 8400 OS Suite Drive Support	24
32.		H1K93A3 YV3	HPE 3PAR 8400 Data Opt St v2 Base Supp	1
33.		H1K93A3 YV4	HPE 3PAR 8400 Data Opt St v2 Drive Supp	24
34.		QK734A	HP Premier Flex LC/LC OM4 2f 5m Cbl	4
35.		AG469A	HP Door/dock Extra Large Logistic SVC	1
36.		HA124A1	HP Technical Installation Startup SVC	1
37.		HA124A1 5Y3	HPE Startup 3PAR 8000 Data Opt St v2 SVC	1

### B.3 Medium SAN (HPE 3PAR & Primera)

#### B.3.1 3PAR 8200 with 32x 4TB SSD (111 TiB raw) with All- Inclusive Single System license

#	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	K2Q36B	HPE 3PAR 8200 2N+SW Storage Field Base	1
2	K2P91B	HPE 3PAR 8000 3.84TB SAS SFF (2.5in) SSD with All-inclusive Single-system Software	16
3	K2P91B 0D1	Factory Integrated	16
4	N9Z18A	HPE 3PAR StoreServ 8000 4-port 16Gb Fibre Channel/10Gb NIC Combo Adapter	2
5	N9Z18A 0D1	Factory Integrated	2
6	E7Y71A	HPE 3PAR StoreServ 8000 SFF(2.5in) Field Integrated SAS Drive Enclosure	1
7	K2P91B	HPE 3PAR 8000 3.84TB SAS SFF (2.5in) SSD with All-inclusive Single-system Software	16
8	K2P91B 0D1	Factory Integrated	16
9	Q2S13A	HPE 3PAR StoreServ RPS Service Processor	1
10	HA124A1	HPE Technical Installation Startup SVC	1
11	HA124A1 56W	HPE Startup 3PAR 8K All Inc Sngl Sys SVC	1
12	AG468A	HPE Large Standard Delivery-Door/Dock Service	1
13	HA114A1	HPE Installation and Startup SVC	1

14	HA114A1 5XZ	HPE Startup 3PAR 8000 Fld Int Dr Enc SVC	1
15	HA114A1 5XU	HPE Startup 3PAR 8200 2N Fld Int Bas SVC	1
16	HF383A1	HPE Training Credits for Storage SVC	3
17	H0JD6A1	HPE Storage SSD Extended Replacement SVC	32
18	HT7A6A3	HPE 3Y DC 24x7 wDMR Addon SVC	1
19	HT7A6A3 W3G	HPE 3PAR 8200 2N+SW Storage Base Support	1
20	HT7A6A3 4BG	HPE 3PAR StoreServ AC/RPS SP Support	1
21	HT7A6A3 X8L	HPE 3PAR 8000 3.84TB+SW SFF SSD Supp	32
22	HT7A6A3 Y8N	HPE 3PAR 8000 4-pt 16Gb FC/NIC HBA Supp	2
23	HT7A6A3 YTJ	HPE 3PAR 8000 Drive Encl Support	1

**B.3.2 3PAR 8450-4N with 72x4TB SSD (251TiB raw) with All- Inclusive Single System license**

#	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	H6Z24B	HPE 3PAR 8450 4-node Storage Field Integrated Base with All- inclusive Single-system Software	1
2	K2P91B	HPE 3PAR 8000 3.84TB SAS SFF (2.5in) SSD with All- inclusive Single-system Software	36
3	K2P91B 0D1	Factory Integrated	36
4	N9Z18A	HPE 3PAR StoreServ 8000 4-port 16Gb Fibre Channel/10Gb NIC Combo Adapter	4
5	N9Z18A 0D1	Factory Integrated	4
6	E7Y71A	HPE 3PAR StoreServ 8000 SFF(2.5in) Field Integrated SAS Drive Enclosure	2
7	K2P91B	HPE 3PAR 8000 3.84TB SAS SFF (2.5in) SSD with All- inclusive Single-system Software	36
8	K2P91B 0D1	Factory Integrated	36
9	Q2S13A	HPE 3PAR StoreServ RPS Service Processor	1
10	HA124A1	HPE Technical Installation Startup SVC	1
11	HA124A1 56W	HPE Startup 3PAR 8K All Inc Sngl Sys SVC	1
12	P1F60A	HPE Inside Unpack/Clean Up XL SVC	1
13	HA114A1	HPE Installation and Startup SVC	1
14	HA114A1 5XZ	HPE Startup 3PAR 8000 Fld Int Dr Enc SVC	2
15	HA114A1 5XW	HPE Startup 3PAR 84XX 4N Fld Int Bas SVC	1
16	H0JD6A1	HPE Storage SSD Extended Replacement SVC	72
17	HT7A6A3	HPE 3Y DC 24x7 wDMR Addon SVC	1
18	HT7A6A3 X7U	HPE 3PAR 8450 4N+SW Storage Base Support	1
19	HT7A6A3 4BG	HPE 3PAR StoreServ AC/RPS SP Support	1
20	HT7A6A3 X8L	HPE 3PAR 8000 3.84TB+SW SFF SSD Supp	72
21	HT7A6A3 Y8N	HPE 3PAR 8000 4-pt 16Gb FC/NIC HBA Supp	4
22	HT7A6A3 YTJ	HPE 3PAR 8000 Drive Encl Support	2

**B.3.3 Primera A630 with 32 x 4TB SSD (111 TiB raw) with All- Inclusive license (Multi-system by default included as well)**

#	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	N9Z46A	HPE Primera 600 2-way Storage Base	1
2	N9Z55A	HPE Primera A630 2-node Controller	1
3	N9Z55A 0D1	Factory Integrated	1
4	R0P99A	HPE Primera 600 3.84TB SAS SFF (2.5in) FIPS Encrypted SSD	16
5	R0P99A 0D1	Factory Integrated	16
6	N9Z39A	HPE Primera 600 32Gb 4-port Fibre Channel Host Bus Adapter	2
7	N9Z39A 0D1	Factory Integrated	2
8	716195-B21	HPE External 1.0m (3ft) Mini-SAS HD 4x to Mini-SAS HD 4x Cable	2
9	716195-B210D1	Factory Integrated	2
10	581817-B21	HPE Configurator Defined Build Instruction Option	1
11	N9Z50A	HPE Primera 600 2U 24-disk SFF Drive Enclosure	1
12	R0P99A	HPE Primera 600 3.84TB SAS SFF (2.5in) FIPS Encrypted SSD	16
13	R0P99A 0D1	Factory Integrated	16
14	P1F60A	HPE Inside Unpack/Clean Up XL SVC	1
15	HA124A1	HPE Technical Installation Startup SVC	1
16	HA124A1 5SH	HPE Startup Primera 600 2N Base Fld SVC	1
17	HA124A1 5Q3	HPE Startup Primera 600 Drv Enc Fld SVC	1
18	HA124A1 5R5	HPE Startup Primera 600 Base SW SVC	1
19	H0JD6A1	HPE Storage SSD Extended Replacement SVC	32
20	HT7A6A3	HPE 3Y DC 24x7 wDMR Addon SVC	1
21	HT7A6A3 Z09	HPE Primera 600 2-way Storage Base Supp	1
22	HT7A6A3 WSF	HPE Internal Entitlement Support	1
23	HT7A6A3 Z0B	HPE Primera A630/C630 2N Controller Supp	1
24	HT7A6A3 Z0J	HPE Primera 600 2U24 SFF Enclosure Supp	1
25	HT7A6A3 Z0N	HPE Primera 600 4p 32Gb FC HBA Support	2
26	HT7A6A3 Z0W	HPE Primera 600 3.84TB SFF FE SSD Supp	32
27	R1P30AAE	HPE Primera 630/650/670 Software E-Media Kit	1

**B.3.4 Primera A650-4N with 72 x 4TB SSD (251 TiB raw) with All-Inclusive license (Multi-system by default included as well)**

#	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	N9Z47A	HPE Primera 600 4-way Storage Base	1
2	N9Z61A	HPE Primera A650 4-node Controller	1
3	N9Z61A 0D1	Factory Integrated	1
4	R0P99A	HPE Primera 600 3.84TB SAS SFF (2.5in) FIPS Encrypted SSD	36
5	R0P99A 0D1	Factory Integrated	36
6	N9Z39A	HPE Primera 600 32Gb 4-port Fibre Channel Host Bus Adapter	4
7	N9Z39A 0D1	Factory Integrated	4
8	716195-B21	HPE External 1.0m (3ft) Mini-SAS HD 4x to Mini-SAS HD 4x Cable	8
9	716195-B21 0D1	Factory Integrated	8

10	581817-B21	HPE Configurator Defined Build Instruction Option	1
11	N9Z50A	HPE Primera 600 2U 24-disk SFF Drive Enclosure	2
12	R0P99A	HPE Primera 600 3.84TB SAS SFF (2.5in) FIPS Encrypted SSD	36
13	R0P99A 0D1	Factory Integrated	36
14	P1F60A	HPE Inside Unpack/Clean Up XL SVC	1
15	HA124A1	HPE Technical Installation Startup SVC	1
16	HA124A1 5SY	HPE Startup Primera 600 4N Base Fld SVC	1
17	HA124A1 5Q3	HPE Startup Primera 600 Drv Enc Fld SVC	2
18	HA124A1 5R5	HPE Startup Primera 600 Base SW SVC	1
19	H0JD6A1	HPE Storage SSD Extended Replacement SVC	72
20	HT7A6A3	HPE 3Y DC 24x7 wDMR Addon SVC	1
21	HT7A6A3 Z0A	HPE Primera 600 4-way Storage Base Supp	1
22	HT7A6A3 WSF	HPE Internal Entitlement Support	1
23	HT7A6A3 Z0D	HPE Primera A650/C650 4N Controller Supp	1
24	HT7A6A3 Z0J	HPE Primera 600 2U24 SFF Enclosure Supp	2
25	HT7A6A3 Z0N	HPE Primera 600 4p 32Gb FC HBA Support	4
26	HT7A6A3 Z0W	HPE Primera 600 3.84TB SFF FE SSD Supp	72
27	R1P30AAE	HPE Primera 630/650/670 Software E-Media Kit	1

**B.3.5 Primera A650-4N with 72 x 8TB SSD (502 TiB raw) with All-Inclusive license (Multi-system by default included as well)**

#	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	N9Z47A	HPE Primera 600 4-way Storage Base	1
2	N9Z61A	HPE Primera A650 4-node Controller	1
3	N9Z61A 0D1	Factory Integrated	1
4	R0Q00A	HPE Primera 600 7.68TB SAS SFF (2.5in) FIPS Encrypted SSD	36
5	R0Q00A 0D1	Factory Integrated	36
6	N9Z39A	HPE Primera 600 32Gb 4-port Fibre Channel Host Bus Adapter	4
7	N9Z39A 0D1	Factory Integrated	4
8	716195-B21	HPE External 1.0m (3ft) Mini-SAS HD 4x to Mini-SAS HD 4x Cable	8
9	716195-B21 0D1	Factory Integrated	8
10	581817-B21	HPE Configurator Defined Build Instruction Option	1
11	N9Z50A	HPE Primera 600 2U 24-disk SFF Drive Enclosure	2
12	R0Q00A	HPE Primera 600 7.68TB SAS SFF (2.5in) FIPS Encrypted SSD	36
13	R0Q00A 0D1	Factory Integrated	36
14	P1F60A	HPE Inside Unpack/Clean Up XL SVC	1
15	HA124A1	HPE Technical Installation Startup SVC	1
16	HA124A1 5SY	HPE Startup Primera 600 4N Base Fld SVC	1
17	HA124A1 5Q3	HPE Startup Primera 600 Drv Enc Fld SVC	2
18	HA124A1 5R5	HPE Startup Primera 600 Base SW SVC	1
19	H0JD6A1	HPE Storage SSD Extended Replacement SVC	72

20	HT7A6A3	HPE 3Y DC 24x7 wDMR Addon SVC	1
21	HT7A6A3 Z0A	HPE Primera 600 4-way Storage Base Supp	1
22	HT7A6A3 WSF	HPE Internal Entitlement Support	1
23	HT7A6A3 Z0D	HPE Primera A650/C650 4N Controller Supp	1
24	HT7A6A3 Z0J	HPE Primera 600 2U24 SFF Enclosure Supp	2
25	HT7A6A3 Z0N	HPE Primera 600 4p 32Gb FC HBA Support	4
26	HT7A6A3 Z0X	HPE Primera 600 7.68TB SFF FE SSD Supp	72
27	R1P30AAE	HPE Primera 630/650/670 Software E-Media Kit	1

**B.3.6 Medium SAN (HP): HP 3PAR StoreServ 8400 4N 4+500TB**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
HP 3PAR StoreServ 8400 4N, Rack Mount, 3.6TB SAS SFF SSD RAW, 500TB 7.2K SAS RAW; 16GB x 48 Port FC; Switch licenced, c/w Cables, Warranty 3yr On-site, Next Business Day				
1.	SAN Unit	H6Z02A	HP 3PAR StoreServ 8400 4-node Field Integrated Storage Base	1
2.	SSD	K2Q95A	HP 3PAR StoreServ 8000 480GB SAS MLC SFF(2.5in) Solid State Drive	4
3.		K2Q95A / 0D1	HP 3PAR StoreServ 8000 480GB SAS MLC SFF(2.5in) Solid State Drive	4
4.		L7B69A	HP 3PAR 8400 Operating System Suite Base LTU	1
5.		L7B69A / 0D1	HP 3PAR 8400 Operating System Suite Base FIO LTU	1
6.		L7B70A	HP 3PAR 8400 Operating System Suite Drive LTU	136
7.		L7B70A / 0D1	HP 3PAR 8400 Operating System Suite Drive FIO LTU	136
8.		L7B71A	HP 3PAR 8400 Data Optimization Suite v2 Base LTU	1
9.		L7B71A / 0D1	HP 3PAR 8400 Data Optimization Suite v2 Base FIO LTU	1
10.		L7B72A	HP 3PAR 8400 Data Optimization Suite v2 Drive LTU	136
11.		L7B72A / 0D1	HP 3PAR 8400 Data Optimization Suite v2 Drive FIO LTU	136
12.		E7Y71A	HP 3PAR StoreServ 8000 SFF(2.5in) Field Integrated SAS Drive Encl	2
13.	SSD	K2Q95A	HP 3PAR StoreServ 8000 480GB SAS MLC SFF(2.5in) Solid State Drive	4
14.		K2Q95A / 0D1	HP 3PAR StoreServ 8000 480GB SAS MLC SFF(2.5in) Solid State Drive	4
15.		E7Y72A	HP 3PAR StoreServ 8000 LFF(3.5in) Field Integrated SAS Drive Encl	6
16.	HDD	K2P87A	HP 3PAR StoreServ 8000 4TB SAS 7.2K LFF(3.5in) Hard Drive	72
17.		K2P87A / 0D1	HP 3PAR StoreServ 8000 4TB SAS 7.2K LFF(3.5in) Hard Drive FIO	72
18.		E7Y72A	HP 3PAR StoreServ 8000 LFF(3.5in) Field Integrated SAS Drive Encl	4
19.	HDD	K2P87A	HP 3PAR StoreServ 8000 4TB SAS 7.2K LFF(3.5in) Hard Drive	56
20.		K2P87A / 0D1	HP 3PAR StoreServ 8000 4TB SAS 7.2K LFF(3.5in) Hard Drive FIO	56
21.		HA114A1	HP Installation and Startup Service	1



22.		HA114A1 / 5XW	HP Startup 3PAR 84XX 4N Fld Int Base SVC	1
23.		HA114A1 / 5XZ	HP Startup 3PAR 8000 Fld Int Drv Enc SVC	12
24.		BD362AAE	HP 3PAR StoreServ Mgmt/Core SW E-Media	1
25.		BD363AAE	HP 3PAR 7000/7450 OS Suite E-Media	1
26.	Warranty	H1K93A3	HP 3Y 4hr 24x7w DMR Proactive Care SVC	1
27.		H1K93A3 / WSF	HP 3PAR Internal Entitlement Purpose	2
28.		H1K93A3 / YTA	HP 3PAR StoreServ 8400 4N Base Supp	1
29.		H1K93A3 / YTJ	HP 3PAR 8000 Drive Encl Supp	12
30.		H1K93A3 / YTY	HP 3PAR 8000 480GB MLC SFF SSD Supp	8
31.		H1K93A3 / YU6	HP 3PAR 8000 4TB 7.2K LFF HDD Supp	128
32.		H1K93A3 / YV1	HP 3PAR 8400 OS Suite Base Supp	1
33.		H1K93A3 / YV2	HP 3PAR 8400 OS Suite Drive Supp	136
34.		H1K93A3 / YV3	HP 3PAR 8400 Data Opt St v2 Base Supp	1
35.		H1K93A3 / YV4	HP 3PAR 8400 Data Opt St v2 Drive Supp	136
36.	Cables	QK734A	HP Premier Flex LC/LC OM4 2f 5m Cbl	8
37.	Cables	E7V95A	HP 10m Mini SAS High Density Active Optical Cable	12
38.	FC Switch	QK754B	HP SN6000B 16Gb 48-port 24-port Active Power Pack+ Fibre Channel	2
39.		QK754B / 05Y	HP SN6000B 16Gb 48-port 24-port Active Power Pack+ FC 2.4m Jmpr (	2
40.		AJ716B	HP 8Gb Short Wave B-Series SFP+ 1 Pack	48
41.		AJ716B / 0D1	HP 8Gb Shortwave B-series Fibre Channel 1 Pack SFP+ Configured to	48
42.	Warranty	H7J32A3	HP 3Yr Foundation Care NBD Service	1
43.		H7J32A3 / QAL	HP SN6000B 16Gb 48_24 PPck+ FC JW Supp	2
44.		TC472AAE	HP Intelligent Inft Analyzer SW v2 E-LTU	1

### B.3.7 Medium SAN: HPE 3PAR StoreServ 8400 4N (JFCB)

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
			HP 3PAR StoreServ 8400 4N, Rack Mount, 7TB SSD RAW, 115TB 10K SAS RAW, 288TB 7.2K SAS RAW; Dual Power	
			Supply, 16GB x 48 Port FC Switch licenced, c/w Cables, Warranty 3yr 4hr 24x7 On-site, Incl Installation. JFCB Config.	
1.	SAN Unit	H6Z02A	HP 3PAR StoreServ 8400 4N Fld Int Base	1
2.	HDD	K2P93A	HP 3PAR 8000 1.2TB SAS 10K SFF HDD	96
3.	SDD	K2Q95A	HP 3PAR 8000 480GB SAS MLC SFF SSD	16
4.	HDD	K2P87A	HP 3PAR 8000 4TB SAS 7.2K LFF HDD	72
5.		E7Y71A	HP 3PAR 8000 SFF(2.5in) Fld Int Drv Encl	8
6.		E7Y72A	HP 3PAR 8000 SFF(3.5in) Fld Int Drv Encl	4
7.		BD362AAE	HP 3PAR StoreServ Mgmt/Core SW E-Media	1
8.		BD363AAE	HP 3PAR OS Suite Latest E-Media	1
9.		BD369AAE	HP 3PAR App Suite for Hyper-V E-Media	1
10.		D4U75AAE	HP StoreOnce RMC E-LTU	1
11.		L7B69AAE	HP 3PAR 8400 OS Suite Base E-LTU	1
12.		L7B70AAE	HP 3PAR 8400 OS Suite Drive E-LTU	168
13.		L7B71AAE	HP 3PAR 8400 Data Opt St v2 Base E-LTU	1
14.		L7B72AAE	HP 3PAR 8400 Data Opt St v2 Drive E-LTU	168
15.		L7B73AAE	HP 3PAR 8400 Replication Ste Base E-LTU	1

16.		L7B74AAE	HP 3PAR 8400 Replication Ste Drv E-LTU	168
17.		L7D41AAE	HP 3PAR 8400 App Suite MS Hyp-V E-LTU	1
18.			HP 3Y 4 hr 24x7 Proactive Care SVC	1
19.		H1K92A5 U28	HP SO Rec Mgr Central Base SW Supp	1
20.		H1K92A5 WSF	HP 3PAR Internal Entitlement Purpose	3
21.		H1K92A5 YTA	HP 3PAR StoreServ 8400 4N Base Supp	1
22.		H1K92A5 YTJ	HP 3PAR 8000 Drive Encl Supp	12
23.		H1K92A5 YTV	HP 3PAR 8000 1.2TB 10K SFF HDD Supp	96
24.		H1K92A5 YTY	HP 3PAR 8000 480GB MLC SFF SSD Supp	16
25.		H1K92A5 YU6	HP 3PAR 8000 4TB 7.2K LFF HDD Supp	72
26.		H1K92A5 YV1	HP 3PAR 8400 OS Suite Base Supp	1
27.		H1K92A5 YV2	HP 3PAR 8400 OS Suite Drive Supp	168
28.		H1K92A5 YV3	HP 3PAR 8400 Data Opt St v2 Base Supp	1
29.		H1K92A5 YV4	HP 3PAR 8400 Data Opt St v2 Drive Supp	168
30.		H1K92A5 YV5	HP 3PAR 8400 Replication Suite Base Supp	1
31.		H1K92A5 YV6	HP 3PAR 8400 Replication Ste Drive Supp	168
32.		H1K92A5 YVR	HP 3PAR 8400 App Suite supp	1
33.		QK734A	HP Premier Flex LC/LC OM4 2f 5m Cbl	8
34.		AG469A	HP Door/dock Extra Large Logistic SVC	1
35.		H0JD0A1	HP 3PAR Storserv Onl Imp Quick Start Svc	1
36.		HA124A1	HP Technical Installation Startup SVC	1
37.		HA124A1 5WD	HP StoreOnce RMC Startup SVC	1
38.		HA124A1 5Y0	HP Startup 3PAR 8K Fld Drv -Drv Enc SVC	16
39.		HA124A1 5Y3	HP Startup 3PAR 8000 Data Opt Ste v2 SVC	1
40.		HA124A1 5Y5	HP Startup 3PAR 8000 System Reporter SVC	1
41.		HA124A1 5YB	HP Startup 3PAR 8000 App Ste Hyper-V SVC	1
42.		QK754B	HP SN6000B 16Gb 48/24 Pwr Pck+ FC Switch	2
43.		QK754B 05Y	2.4m Jumper (IEC320 C13/C14,M/F CEE 22)	2
44.		QK724A	HP B-series 16Gb SFP+SW XCVR	48
45.		QK724A 0D1	factory installation	48
46.		HA113A1	Installation	1
47.		HA113A1 5GA	LowEnd SAN/Edge Switch/HAFM Installation	2
48.		TC472AAE	HP Intelligent Inft Analyzer SW v2 E-LTU	1
49.			HP 3Y 4 hr 24x7 Proactive Care SVC	1
50.		H1K92A5 QAL	HP SN6000B 16Gb 48/24 PPck+ FC JW Supp	2
51.		H1K92A5 RWG	HP Intelligent Infra Analyzer LTU Sup	1
52.		HF383A1	HP CP Svc for Storage Training in English language for 4 participants	

**B.3.8 Medium SAN: HPE 3PAR Storeserv 8400 4N Base system 12x 1,92TB SSD**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
			3PAR Storeserv 8400 4N Base system 12x 1,92TB SSD	
1.		H6Z02A	HP 3PAR StoreServ 8400 4-node Field Integrated Storage Base	1
2.		K2R27A	HP 3PAR StoreServ 8000 1.92TB SAS SFF (2.5in) FIPS Encrypted Soli	12
3.			HPE 3PAR StoreServ 8000 1.92TB SAS	

		K2R27A 0D1	cMLC SFF(2.5in) FIPS Encrypted	12
4.		L7B69A	HP 3PAR 8400 Operating System Suite Base LTU	1
5.		L7B69A 0D1	HP 3PAR 8400 Operating System Suite Base FIO	1
6.		L7B70A	HP 3PAR 8400 Operating System Suite Drive LTU	12
7.		L7B70A 0D1	HP 3PAR 8400 Operating System Suite Drive FIO	12
8.		L7B71A	HP 3PAR 8400 Data Optimization Suite v2 Base LTU	1
9.		L7B71A 0D1	HP 3PAR 8400 Data Optimization Suite v2 Base	1
10.		L7B72A	HP 3PAR 8400 Data Optimization Suite v2 Drive LTU	12
11.		L7B72A 0D1	HP 3PAR 8400 Data Optimization Suite v2 Drive	12
12.		HA114A1	HP Installation and Startup Service	1
13.		HA114A1 5XW	HPE Startup 3PAR 84XX 4N Fld Int Bas SVC	1
14.		BD362AAE	HP 3PAR StoreServ Mgmt/Core SW E-Media	1
15.		BD363AAE	HP 3PAR 7000/7450 OS Suite E-Media	1
16.		H1K93A3	HP 3Y 4 hr 24x7 w DMR Proactive Care SVC	1
17.		H1K93A3 WSF	HP 3PAR Internal Entitlement Purpose	2
18.		H1K93A3 YTA	HP 3PAR StoreServ 8400 4N Base Supp	1
19.		H1K93A3 YU1	HPE 3PAR 8000 1.92TB SFF FESSD Supp	12
20.		H1K93A3 YV1	HP 3PAR 8400 OS Suite Base Supp	1
21.		H1K93A3 YV2	HPE 3PAR 8400 OS Suite Drive Support	12
22.		H1K93A3 YV3	HPE 3PAR 8400 Data Opt St v2 Base Supp	1
23.		H1K93A3 YV4	HPE 3PAR 8400 Data Opt St v2 Drive Supp	12
24.		QK734A	HP Premier Flex LC/LC OM4 2f 5m Cbl	8
25.		HA124A1	HP Technical Installation Startup SVC	1
26.		HA124A1#5Y0	HP Startup 3PAR 8K Fld Drv - Drv Enc SVC	1
27.		HA124A1#5Y3	HP Startup 3PAR 8000 Data Opt Ste v2 SVC	1

**B.3.9 Medium SAN: HPE 3PAR Storeserv 8400 4N Base system 12x 3,84TB SSD**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
			3PAR Storeserv 8400 4N Base system 12x 3,84TB SSD	
1.		H6Z02A	HP 3PAR StoreServ 8400 4-node Field Integrated Storage Base	1
2.		M0T66A	HPE 3PAR StoreServ 8000 3.84TB SAS SFF (2.5in) FIPS Encrypted Sol	12
3.		M0T66A 0D1	HPE 3PAR StoreServ 8000 3.84TB SAS cMLC SFF(2.5in) FIPS Encrypted	12
4.		L7B69A	HP 3PAR 8400 Operating System Suite Base LTU	1
5.		L7B69A 0D1	HP 3PAR 8400 Operating System Suite Base FIO	1

6.		L7B70A	HP 3PAR 8400 Operating System Suite Drive LTU	12
7.		L7B70A 0D1	HP 3PAR 8400 Operating System Suite Drive FIO	12
8.		L7B71A	HP 3PAR 8400 Data Optimization Suite v2 Base LTU	1
9.		L7B71A 0D1	HP 3PAR 8400 Data Optimization Suite v2 Base	1
10.		L7B72A	HP 3PAR 8400 Data Optimization Suite v2 Drive LTU	12
11.		L7B72A 0D1	HP 3PAR 8400 Data Optimization Suite v2 Drive	12
12.		HA114A1	HP Installation and Startup Service	1
13.		HA114A1 5XW	HPE Startup 3PAR 84XX 4N Fld Int Bas SVC	1
14.		BD362AAE	HP 3PAR StoreServ Mgmt/Core SW E-Media	1
15.		BD363AAE	HP 3PAR 7000/7450 OS Suite E-Media	1
16.		H1K93A3	HP 3Y 4 hr 24x7 w DMR Proactive Care SVC	1
17.		H1K93A3 WSF	HP 3PAR Internal Entitlement Purpose	2
18.		H1K93A3 XE1	HPE 3PAR 8000 3.84TB SFF FE SSD Supp	12
19.		H1K93A3 YTA	HP 3PAR StoreServ 8400 4N Base Supp	1
20.		H1K93A3 YV1	HP 3PAR 8400 OS Suite Base Supp	1
21.		H1K93A3 YV2	HPE 3PAR 8400 OS Suite Drive Support	12
22.		H1K93A3 YV3	HPE 3PAR 8400 Data Opt St v2 Base Supp	1
23.		H1K93A3 YV4	HPE 3PAR 8400 Data Opt St v2 Drive Supp	12
24.		QK734A	HP Premier Flex LC/LC OM4 2f 5m Cbl	8
25.		HA124A1	HP Technical Installation Startup SVC	1
26.		HA124A1 5Y0	HPE Startup 3PAR 8K Fld Drv-Drv Enc SVC	1
27.		HA124A1 5Y3	HPE Startup 3PAR 8000 Data Opt St v2 SVC	1

**B.3.10 Medium SAN: HPE 3PAR Storeserv 8400 4N Base system 12x 7,68TB SSD**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
			3PAR Storeserv 8400 4N Base system 12x 7,68TB SSD	
1.		H6Z02A	HP 3PAR StoreServ 8400 4-node Field Integrated Storage Base	1
2.		P9L83A	HPE 3PAR StoreServ 8000 7.68TB SAS SFF (2.5in) Solid State Drive	12
3.		P9L83A 0D1	HPE 3PAR StoreServ 8000 7.68TB SAS SFF (2.5in) Solid State Drive	12
4.		L7B69A	HP 3PAR 8400 Operating System Suite Base LTU	1
5.		L7B69A 0D1	HP 3PAR 8400 Operating System Suite Base FIO	1
6.		L7B70A	HP 3PAR 8400 Operating System Suite Drive LTU	12
7.		L7B70A 0D1	HP 3PAR 8400 Operating System Suite Drive FIO	12
8.		L7B71A	HP 3PAR 8400 Data Optimization Suite v2 Base LTU	1
9.		L7B71A 0D1	HP 3PAR 8400 Data Optimization Suite v2 Base	1

10.		L7B72A	HP 3PAR 8400 Data Optimization Suite v2 Drive LTU	12
11.		L7B72A 0D1	HP 3PAR 8400 Data Optimization Suite v2 Drive	12
12.		HA114A1	HP Installation and Startup Service	1
13.		HA114A1 5XW	HPE Startup 3PAR 84XX 4N Fld Int Bas SVC	1
14.		BD362AAE	HP 3PAR StoreServ Mgmt/Core SW E-Media	1
15.		BD363AAE	HP 3PAR 7000/7450 OS Suite E-Media	1
16.		H1K93A3	HP 3Y 4 hr 24x7 w DMR Proactive Care SVC	1
17.		H1K93A3 WSF	HP 3PAR Internal Entitlement Purpose	2
18.		H1K93A3 XYY	HPE 3PAR 8000 7.68TB SFF SSD Supp	12
19.		H1K93A3 YTA	HP 3PAR StoreServ 8400 4N Base Supp	1
20.		H1K93A3 YV1	HP 3PAR 8400 OS Suite Base Supp	1
21.		H1K93A3 YV2	HPE 3PAR 8400 OS Suite Drive Support	12
22.		H1K93A3 YV3	HPE 3PAR 8400 Data Opt St v2 Base Supp	1
23.		H1K93A3 YV4	HPE 3PAR 8400 Data Opt St v2 Drive Supp	12
24.		QK734A	HP Premier Flex LC/LC OM4 2f 5m Cbl	8
25.		H0JD0A1	HP 3PAR Storserv Onl Imp Quick Start Svc	1
26.		HA124A1	HP Technical Installation Startup SVC	1
27.		HA124A1 5Y0	HPE Startup 3PAR 8K Fld Drv-Drv Enc SVC	1
28.		HA124A1 5Y3	HPE Startup 3PAR 8000 Data Opt St v2 SVC	1

**B.3.11 Option for HPE 3PAR 8000: disk shelf HDD 96TB RAW**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.		E7Y72A	HP 3PAR StoreServ 8000 LFF(3.5in) Field Integrated SAS Drive Encl	1
2.		K2P87A	HP 3PAR StoreServ 8000 4TB SAS 7.2K LFF(3.5in) Hard Drive	24
3.		K2P87A 0D1	HP 3PAR StoreServ 8000 4TB SAS 7.2K LFF	24
4.		H7J35A3	HP 3yr Foundation Care 24x7 w DMR SVC	1
5.	Support	H7J35A3 YTJ	HPE 3PAR 8000 Drive Encl Support	1
6.	Support	H7J35A3 YU6	HPE 3PAR 8000 4TB 7.2K LFF HDD Support	24
7.		HA114A1	HP Installation and Startup Service	1
8.		HA114A1 5XZ	HP Startup 3PAR 8000 Fld Int Drv Enc SVC	1

**B.3.12 Option for HPE 3PAR 8000: disk shelf HDD 96TB RAW incl. new licensing model and updated support**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.		Part Number: E7Y72A	HP 3PAR StoreServ 8000 LFF(3.5in) Field Integrated SAS Drive Encl	1
2.		Part Number: K2P87B	HPE 3PAR 8000 4TB+SW 7.2K LFF HDD	24

3.		Part Number: K2P87B 0D1	Factory Integrated	24
4.		Part Number: HA114A1	HP Installation and Startup Service	1
5.		Part Number: HA114A1 5XZ	HP Startup 3PAR 8000 Fld Int Drv Enc SVC	1
6.		Part Number: L7E73AAE	HPE 3PAR 8200 Transition AI SW E-LTU	1
7.		Part Number: H1K93A3	HP 3Y 4 hr 24x7 w DMR Proactive Care SVC	1
8.		Part Number: H1K93A3 WSF	HP 3PAR Internal Entitlement Purpose	1
9.	Support	Part Number: H1K93A3 X88	HPE 3PAR 8000 4TB+SW 7.2K LFF HDD Supp	24
10	Support	Part Number: H1K93A3 YTJ	HP 3PAR 8000 Drive Encl Supp	1

**B.3.13 Option for HPE 3PAR 8000: disk shelf pair HDD 64TB RAW**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.		Part Number: E7Y72A	HP 3PAR StoreServ 8000 LFF(3.5in) Field Integrated SAS Drive Encl	1
2.		Part Number: K2P87B	HPE 3PAR 8000 4TB+SW 7.2K LFF HDD	8
3.		Part Number: K2P87B 0D1	Factory Integrated	8
4.		Part Number: HA114A1	HP Installation and Startup Service	1
5.		Part Number: HA114A1 5XZ	HP Startup 3PAR 8000 Fld Int Drv Enc SVC	1
6.		Part Number: L7E73AAE	HPE 3PAR 8200 Transition AI SW E- LTU	1
7.		Part Number: H7J35A3	HP 3yr Foundation Care 24x7 w DMR SVC	1
8.	Support	Part Number: H7J35A3 WSF	HPE 3PAR Internal Entitlement Supp	1
9.		Part Number: H7J35A3 X88	HPE 3PAR 8000 4TB+SW 7.2K LFF HDD Supp	8
10	Support	Part Number: H7J35A3 YTJ	HPE 3PAR 8000 Drive Encl Support	1

**B.3.14 Option for HPE 3PAR 8000: disk shelf HDD 24TB RAW, SSD 1.92TB RAW**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.		E7Y72A	HP 3PAR StoreServ 8000 LFF(3.5in) Field Integrated SAS Drive Encl	1
2.		K2P95A	HP 3PAR StoreServ 8000 2TB SAS 7.2K LFF (3.5in) Hard Drive	12
3.		K2P95A 0D1	Factory integrated	12
4.		HA114A1	HP Installation and Startup Service	1

5.		HA114A1 5XZ	HP Startup 3PAR 8000 Fld Int Drv Enc SVC	1
6.		K2Q95A	HP 3PAR StoreServ 8000 480GB SAS MLC SFF(2.5in) Solid State Drive	4
7.		H7J35A3	HP 3yr Foundation Care 24x7 w DMR SVC	1
8.	Support	H7J35A3 YTJ	HPE 3PAR 8000 Drive Encl Support	1
9.	Support	35A3 YTY	HPE 3PAR 8000 480GB SFF SSD Supp	4
10.	Support	H7J35A3 YU5	HPE 3PAR 8000 2TB 7.2K LFF HDD Support	12

**B.3.15 Option for HPE 3PAR 8000: Drive Enclosures 48x 4TB HDD**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
			Two Drive Enclosures 48x 4TB HDD (24 drives per enclosure)	
1.		E7Y72A	HP 3PAR StoreServ 8000 LFF(3.5in) Field Integrated SAS Drive Encl	1
2.		K2P87A	HP 3PAR StoreServ 8000 4TB SAS 7.2K LFF(3.5in) Hard Drive	24
3.		K2P87A 0D1	HP 3PAR StoreServ 8000 4TB SAS 7.2K LFF	24
4.		HA114A1	HP Installation and Startup Service	1
5.		HA114A1 5XZ	HP Startup 3PAR 8000 Fld Int Drv Enc SVC	1
6.		L7B70AAE	HP 3PAR 8400 OS Suite Drive E-LTU	24
7.		L7B72AAE	HP 3PAR 8400 Data Opt St v2 Drive E-LTU	24
8.		H1K93A3	HP 3Y 4 hr 24x7 w DMR Proactive Care SVC	1
9.		H1K93A3 YTJ	HP 3PAR 8000 Drive Encl Supp	2
10.		H1K93A3 YU6	HP 3PAR 8000 4TB 7.2K LFF HDD Supp	24
11.		H1K93A3 YV2	HPE 3PAR 8400 OS Suite Drive Support	24
12.		H1K93A3 YV4	HPE 3PAR 8400 Data Opt St v2 Drive Supp	24

**B.3.16 Option for HPE 3PAR 8000: Drive Enclosures 28x 4TB HDD**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
			Two Drive Enclosures 28x 4TB HDD (14 drives per enclosure)	
1.		E7Y72A	HP 3PAR StoreServ 8000 LFF(3.5in) Field Integrated SAS Drive Encl	1
2.		K2P87A	HP 3PAR StoreServ 8000 4TB SAS 7.2K LFF(3.5in) Hard Drive	14
3.		K2P87A 0D1	HP 3PAR StoreServ 8000 4TB SAS 7.2K LFF	14
4.		HA114A1	HP Installation and Startup Service	1
5.		HA114A1 5XZ	HP Startup 3PAR 8000 Fld Int Drv Enc SVC	1
6.		L7B70AAE	HP 3PAR 8400 OS Suite Drive E-LTU	14
7.		L7B72AAE	HP 3PAR 8400 Data Opt St v2 Drive E-LTU	14
8.		H1K93A3	HP 3Y 4 hr 24x7 w DMR Proactive Care SVC	1
9.		H1K93A3 YTJ	HP 3PAR 8000 Drive Encl Supp	1
10.		H1K93A3 YU6	HP 3PAR 8000 4TB 7.2K LFF HDD Supp	14
11.		H1K93A3 YV2	HPE 3PAR 8400 OS Suite Drive	14

			Support	
12.		H1K93A3 YV4	HPE 3PAR 8400 Data Opt St v2 Drive Supp	14

**B.3.17 Option for HPE 3PAR 8000: Additional drives 16x 1,92TB SSD**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
			Additional drives 16x 1,92TB SSD	
1.		L7B70AAE	HP 3PAR 8400 OS Suite Drive E-LTU	1
2.		L7B72AAE	HP 3PAR 8400 Data Opt St v2 Drive E-LTU	1
3.		K2R27A	HP 3PAR StoreServ 8000 1.92TB SAS SFF (2.5in) FIPS Encrypted Soli	1
4.		H1K93A3	HP 3Y 4 hr 24x7 w DMR Proactive Care SVC	1
5.		H1K93A3 YU1	HPE 3PAR 8000 1.92TB SFF FESSD Supp	1
6.		H1K93A3 YV2	HPE 3PAR 8400 OS Suite Drive Support	1
7.		H1K93A3 YV4	HPE 3PAR 8400 Data Opt St v2 Drive Supp	1
8.		HA124A1	HP Technical Installation Startup SVC	1
9.		HA124A1#5Y0	HP Startup 3PAR 8K Fld Drv - Drv Enc SVC	1

**B.3.18 Option for HPE 3PAR 8000: Additional drives 8x 1,92TB SSD**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
			Additional drives 8x 1,92TB SSD	
1.		L7B70AAE	HP 3PAR 8400 OS Suite Drive E-LTU	8
2.		L7B72AAE	HP 3PAR 8400 Data Opt St v2 Drive E-LTU	8
3.		K2R27A	HP 3PAR StoreServ 8000 1.92TB SAS SFF (2.5in) FIPS Encrypted Soli	8
4.		H1K93A3	HP 3Y 4 hr 24x7 w DMR Proactive Care SVC	1
5.		H1K93A3 YU1	HPE 3PAR 8000 1.92TB SFF FESSD Supp	8
6.		H1K93A3 YV2	HPE 3PAR 8400 OS Suite Drive Support	8
7.		H1K93A3 YV4	HPE 3PAR 8400 Data Opt St v2 Drive Supp	8
8.		HA124A1	HP Technical Installation Startup SVC	1
9.		HA124A1#5Y0	HP Startup 3PAR 8K Fld Drv - Drv Enc SVC	1

**B.4 Medium SAN (NetApp)**

**B.4.1 Medium SAN: AFF A300 HA System P95**



#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
			AFF A300 HA System	1
1		AFF-A300A-001	AFF A300 HA System, FlashBundle	2
2	Cables	X6566B-2-R6-C	Cable, Direct Attach CU SFP+ 10G,2M,-C	2
3	Cables	X66250-2-C	Cable,LC-LC,OM4,2m,-C	8
4	Cables	X66034A-C	Cable,12Gb,Mini SAS HD to HD,5m,-C	4
5		X6235-C	Chassis,FAS8200,AFF-A300,AC PS,-C	1
6		DOC-AFF-A300-C	Documents,AFF-A300,-C	1
7		X6596-R6-C	SFP+ FC Optical 16Gb,-C	8
8		X5526A-R6-C	Rackmount Kit,4-Post,Universal,-C,R6	1
9		X5515A-R6-C	Rackmount Kit,4N2,DS14-Middle,-C,R6	1
10		X800-42U-R6-C	Cabinet Component Power Cable,-C,R6	4
11		ALL-FLASH-OPTIMIZED	Optimized SSD Personality	1
12		DS224C-AF-15.3-24S-0	SSD SHLF,AFF,12G,24x15.3TB,0P,-C	1
13		SW-2-CL-BASE	SW-2,Base,CL,Node 1 0,00 0% 0,00	1
14		SW-2-A300A-TPM-C	SW, Trusted Platform Module Enabled,A300A,-C	2
15		DATA-AT-REST-ENCRYPT	Data at Rest Encryption Capable Operating Sys	2
16		SW-FLASH-PREM-BNDL-U	ONTAP, Per- 0.1TB,FlashBundle,UHC-U-Perf,- C	3672
17		CS-SEC-NBD-VA	SupportEdge Secure Next Bus Day Onsite,VA	1
18		CS-NRD2-Y	Non Returnable Disk Plus,y	1

**B.4.2 Medium SAN: AFF A300 HA System**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
			AFF A300 HA System	1
1		AFF-A300A-001	AFF A300 HA System,FlashBundle	2
2	Cables	X6566B-2-R6-C	Cable, Direct Attach CU SFP+10G,2M,-C	2
3	Cables	X66250-2-C	Cable,LC-LC,OM4,2m,-C	8
4	Cables	X66034A-C	Cable,12Gb,Mini SAS HD to HD,5m,-C	4
5		X6235-C	Chassis,FAS8200,AFF-A300,AC PS,-C	1
6		DOC-AFF-A300-C	Documents,AFF-A300,-C	1
7		X6596-R6-C	SFP+ FC Optical 16Gb,-C	8
8		X5526A-R6-C	Rackmount Kit,4-Post,Universal,-C,R6	1
9		X5515A-R6-C	Rackmount Kit,4N2,DS14-Middle,-C,R6	1
10		X800-42U-R6-C	Cabinet Component Power Cable,-C,R6	4
11		ALL-FLASH-OPTIMIZED	Optimized SSD Personality	1
12		DS224C-AF-15.3-24S-0	SSD SHLF,AFF,12G,24x15.3TB,0P,-C	1
13		SW-2-CL- BASE	SW-2,Base,CL,Node 1 0,00 0% 0,00	1
14		SW-2-A300A-TPM-C	SW, Trusted Platform Module Enabled,A300A,-C	2
15		DATA-AT-REST-ENCRYPT	Data at Rest Encryption Capable Operating Sys	2

16		SW-FLASH-PREM-BNDL- U	ONTAP, Per-0.1TB,FlashBundle,UHC-U-Perf,-C	3672
17		CS-SEC-NBD-VA	SupportEdge Secure Next Bus Day Onsite,VA	1
18		CS-NRD2-Y	Non Returnable Disk Plus,y	1

## B.5 SAN Switch (HPE)

### B.5.1 SAN Switch SN6600B (32Gb Fibre Channel; 48-ports capable; 24-ports active; Power Pack+ functionality)

#	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	Q0U59B	HPE StoreFabric SN6600B 32Gb 48/24 Power Pack+ 24-port 32Gb Short Wave SFP+ Integrated FC Switch	1
2	Q0U59B 05Y	2.4m Jumper (IEC320 C13/C14 M/F CEE 22)	1
3	AG467A	HPE Medium Standard Delivery-Door/Dock Service	1
4	HA113A1	HPE Installation SVC	1
5	HA113A1 5GA	HPE LowEnd SAN/Edge Switch/HAFM Inst SVC	1
6	HT7A6A3	HPE 3Y DC 24x7 wDMR Addon SVC	1
7	HT7A6A3 ZHZ	HPE SN6600B 32Gb 48/48 PP Switch Support	1

## B.6 Tape Library (HPE)

### B.6.1 MSL6480 physical tape library with 4 drives LTO8; 160 slots; 100 tapes

#	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	QU625A	HPE StoreEver MSL6480 Scalable Base Module	1
2	P1F60A	HPE Inside Unpack/Clean Up XL SVC	1
3	Q6Q67A	HPE StoreEver MSL LTO-8 Ultrium 30750 FC Drive Upgrade Kit	4
4	QU626A	HPE StoreEver MSL6480 Scalable Expansion Module	1
5	TC444AAE	HPE StoreEver MSL6480 Command View TL E-LTU	1
6	Q2078AN	HPE LTO-8 Ultrium 30TB RW Non Custom Labeled Library Pack 20 Data Cartridges with Cases	5
7	HA113A1	HPE Installation SVC	1
8	HA113A1 5DU	HPE StoreEver Driv PwrSupCrd Install SVC	4
9	HA114A1	HPE Installation and Startup Service	1
10	HA114A1 5UE	HPE StoreEver MSL6480 Base M Startup SVC	1
11	HA114A1 5UF	HPE StoreEver MSL6480 Expa M Startup SVC	1
12	HT7A6A3	HPE 3Y DC 24x7 wDMR Addon SVC	1
13	HT7A6A3 QC6	HPE MSL6480 Base Support	1
14	HT7A6A3 QC7	HPE MSL6480 Expansion Support	1
15	HT7A6A3 QC8	HPE MSL6480 Cmand Vew TL Support	1

### B.6.2 Tape Library (HP): HP MSL4048 Tape Library

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
			HP MSL4048 Tape Library, LTO6, 2 Drives, FC, Warranty 3yr On-site, Next Business Day	
1.		TC406AAE	HP StoreEver MSL TapeAssure Advanced E-LTU	1
2.	Tape Library	AK381A	HP MSL4048 0-Drive Tape Library	1
3.	Warranty	H7J33A3	HP 3yr Foundation Care NBD w DMR Service	1
4.		H7J33A3 / 80K	MSL4048 Library Support	1
5.		H7J33A3 / QC1	HP MSL TapeAssure Adv Lic SW Supp	1
6.		C0H28A	HP MSL LTO-6 Ultr 6250 FC Drive Upg Kit	2
7.	Power	AH220A	HP MSL Redundant Power Supply Adapter Kit	1
8.	Media	C7976A	HP LTO-6 Ultrium 6.25TB MP RW Data Tape	48

## B.7 StoreOnce (HPE)

### B.7.1 StoreOnce 3620 with max. of 32TB native usable capacity, 2 x FC-connection; 2 x Eth-connection

#	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	BB954A	HPE StoreOnce 3620 24TB System	1
2	BB982A	HPE StoreOnce Gen4 10/25Gb SFP Network Card	1
3	BB982A 0D1	Factory Integrated	1
4	BB990A	HPE StoreOnce Gen4 32Gb Fibre Channel Network Card	1
5	BB990A 0D1	Factory Integrated	1
6	BB961A	HPE StoreOnce 3620 24TB Capacity Upgrade LTU	1
7	BB961A 0D1	Factory Integrated	1
8	BB983A	HPE StoreOnce Gen4 10/25Gb SFP Network Card LTU	1
9	BB983A 0D1	Factory Integrated	1
10	BB991A	HPE StoreOnce Gen4 32Gb Fibre Channel Network Card LTU	1
11	BB991A 0D1	Factory Integrated	1
12	BB960A	HPE StoreOnce 3620 24TB Capacity Upgrade Kit	1
13	BB960A 0D1	Factory Integrated	1
14	AG466A	HPE Small Standard Delivery-Door/Dock Service	1
15	HT7A6A3	HPE 3Y DC 24x7 wDMR Addon SVC	1
16	HT7A6A3 ZH3	HPE StoreOnce 3620 24TB Cap Upg Kit Supp	1
17	HT7A6A3 ZGY	HPE StoreOnce 3620 24TB System Support	1
18	HA124A1	HPE Technical Installation Startup SVC	1
19	HA124A1 5VF	HPE StoreOnce 36xx Stup SVC	1

### B.7.2 StoreOnce 3640 with max. of 108TB native usable capacity, 2 x FC-connection; 2 x Eth-connection

#	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	BB955A	HPE StoreOnce 3640 48TB System	1
2	BB982A	HPE StoreOnce Gen4 10/25Gb SFP Network Card	1
3	BB982A 0D1	Factory Integrated	1
4	BB990A	HPE StoreOnce Gen4 32Gb Fibre Channel Network Card	1
5	BB990A 0D1	Factory Integrated	1
6	BB963A	HPE StoreOnce 3640 48TB Capacity Upgrade LTU	2
7	BB963A 0D1	Factory Integrated	2
8	BB983A	HPE StoreOnce Gen4 10/25Gb SFP Network Card LTU	1
9	BB983A 0D1	Factory Integrated	1
10	BB991A	HPE StoreOnce Gen4 32Gb Fibre Channel Network Card LTU	1
11	BB991A 0D1	Factory Integrated	1
12	BB962A	HPE StoreOnce 3640 48TB Capacity Upgrade Kit	2
13	BB962A 0D1	Factory Integrated	2
14	AG466A	HPE Small Standard Delivery-Door/Dock Service	1
15	HT7A6A3	HPE 3Y DC 24x7 wDMR Addon SVC	1
16	HT7A6A3 ZH4	HPE StoreOnce 3640 48TB Cap Upg Kit Supp	2
17	HT7A6A3 ZGZ	HPE StoreOnce 3640 48TB System Support	1
18	HA124A1	HPE Technical Installation Startup SVC	1
19	HA124A1 5VF	HPE StoreOnce 36xx Stup SVC	1

### B.7.3 StoreOnce 3620 with max. of 216TB native usable capacity, 2 x FC-connection; 2 x Eth-connection

#	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	BB956A	HPE StoreOnce 5200 Base System	1
2	BB982A	HPE StoreOnce Gen4 10/25Gb SFP Network Card	1
3	BB982A 0D1	Factory Integrated	1
4	BB990A	HPE StoreOnce Gen4 32Gb Fibre Channel Network Card	1
5	BB990A 0D1	Factory Integrated	1
6	BB965A	HPE StoreOnce 5200 48TB Capacity Upgrade LTU	6
7	BB965A 0D1	Factory Integrated	6
8	BB983A	HPE StoreOnce Gen4 10/25Gb SFP Network Card LTU	1
9	BB983A 0D1	Factory Integrated	1
10	BB991A	HPE StoreOnce Gen4 32Gb Fibre Channel Network Card LTU	1
11	BB991A 0D1	Factory Integrated	1
12	BB964A	HPE StoreOnce 5200 48TB Capacity Upgrade Kit	6
13	BB964A 0D1	Factory Integrated	6
14	AG467A	HPE Medium Standard Delivery-Door/Dock Service	1

15	HT7A6A3	HPE 3Y DC 24x7 wDMR Addon SVC	1
16	HT7A6A3 ZH5	HPE StoreOnce 5200 48TB Cap Upg Kit Supp	6
17	HT7A6A3 ZH0	HPE StoreOnce 5200 Base System Support	1
18	HA124A1	HPE Technical Installation Startup SVC	1
19	HA124A1 5VL	HPE StoreOnce 5200 Stup SVC	1

## B.8 SAN Accessories (HPE)

### B.8.1 Direct-attached SAS storage HPE D3000 Family

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Storage unit	M0S82A	HPE D3600 w_12 8TB 12G SAS 7.2K LFF (3.5in) Midline Smart Carrier	1
2.	Storage unit	QW967A	HPE D3700 Enclosure	3
3.	Support	U2F92E	HPE 3 year Proactive Care Call to Repair D2000 Disk Enclosure	4
4.	HDD	765466-B21	HP 2TB 12G SAS 7.2K rpm SFF (2.5-inch) SC 512e 1yr Warranty Hard	45
5.	HDD	779172- B21	HP 800GB 12G SAS Mainstream Endurance SFF 2.5-in ENT Mainstream S	15
6.	Cables	716195-B21	HP External 1.0m (3ft) Mini-SAS HD 4x to Mini-SAS HD 4x Cable	6
7.	Cables	716189-B21	HP 1.0m External Mini SAS High Density to Mini SAS Cable	6

### B.8.2 Mini-SAS HD 4x cable 1m

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Cables	716195-B21	HP External 1.0m (3ft) Mini-SAS HD 4x to Mini-SAS HD 4x Cable	1

### B.8.3 HPE 10m Mini SAS High Density Active Optical Cable (12)

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Cable	E7V95A	HP 10m Mini SAS High Density Active Optical Cable	1

## B.9 Patchcords

### B.9.1 UTP Cat6a patch cord 1m

#	Item	Part Number	Specification	Quantity of sub-elements needed for full
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				Configuration <sup>1</sup>
1.	Cables	2199142 1	Value UTP patchable Cat6a 1.0m	1

**B.9.2 UTP Cat6a patch cord 2m**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Cables	2199142 2	Value UTP patchable Cat6a, 2.0m	1

**B.9.3 UTP Cat6a patch cord 3m**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Cables	2199142 3	Value UTP patchable Cat6a, 3.0m	1

**B.9.4 UTP Cat6a patch cord 5m**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Cables	2199142 5	Value UTP patchable Cat6a, 5.0m	1

**B.9.5 UTP Cat6a patch cord 7m**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Cables	2199142 6	Value UTP patchable Cat6a, 7.0m	1

**B.10 PIMIC**

**B.10.1 HP 3PAR StoreServ 8450 4N, 64x3, 84TB SSD, 45TB**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.		BW904A	HP 642 1075mm Shock Intelligent Series Rack	1
2.		H6Z23A	HPE 3PAR StoreServ 8450 4N Storage Base	1
3.		H6Z23A 0D1	Factory Integrated	1
4.		H6Z10A	HPE 3PAR 8000 2-pt 10Gb iSCSI/FCoE Adptr	4
5.		H6Z10A 0D1	Factory Integrated	4
6.		K2P91A	HPE 3PAR 8000 3.84TB SFF SSD	16
7.		K2P91A 0D1	Factory Integrated	16
8.		L7C17A	HPE 3PAR 8450 OS Suite Base LTU	1
9.		L7C17A 0D1	Factory Integrated	1
10.		L7C18A	HPE 3PAR 8450 Operating System Suite Drive LTU	32
11.		L7C18A 0D1	Factory Integrated	32
12.		L7C21A	HPE 3PAR 8450 Replication Suite Base LTU	1
13.		L7C21A 0D1	Factory Integrated	1
14.		L7C22A	HPE 3PAR 8450 Replication Suite Drive LTU	32

15.		L7C22A 0D1	Factory Integrated	32
16.		BD443A	HPE 3PAR 8450 File Persona Ste 1TB LTU	50
17.		BD443A 0D1	Factory Integrated	50
18.		BW904A 001	HP 642 1075mm Shock Intelligent Series Rack	1
19.		H6Z26A	HPE 3PAR 8000 SFF(2.5in) SAS Drive Encl	2
20.		H6Z26A 0D1	Factory Integrated	2
21.		K2P91A	HPE 3PAR 8000 3.84TB SFF SSD	16
22.		K2P91A 0D1	Factory Integrated	16
23.		TK808A	HP Rack Front Door Cover Kit	1
24.		TK808A 0D1	Factory Integrated	1
25.		H5M68A	HP 7.3kVA 230 Volt 20 Outlet INTL Basic Power Distribution Unit	4
26.		H5M68A 0D1	Factory Integrated	4
27.		BW906A	HP 42U 1075mm Side Panel Kit	1
28.		BW906A 0D1	Factory integrated	1
29.		HA114A1	HP Installation and Startup Service	1
30.		HA114A1 5XT	HPE Startup 3PAR 84XX 4N Storage Bas SVC	1
31.		HA113A1	HP Installation Service	1
32.		HA113A1 5BY	Rack and Rack Options Installation	1
33.		BD362AAE	HP 3PAR StoreServ Mgmt/Core SW E-Media	1
34.		BD363AAE	HP 3PAR 7000/7450 OS Suite E-Media	1
35.		H4396B	HP No Additional Support Required	1
36.		H0JD6A1	HPE 3PAR SSD Extended Replacement SVC	32
37.		HA124A1	HP Technical Installation Startup SVC	1
38.		HA124A1 5Y5	HP Startup 3PAR 8000 System Reporter SVC	1
39.		HA124A1 5Y9	HP Startup 3PAR 8000 File Persona St SVC	1
40.		HA124A1 5Y8	HP Startup 3PAR 8K Rpl Ste VC-RC-PP SVC	1

**B.10.2 HP StoreServ 8200 2N, 12x1, 92TB SSD, 23TB**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.		BW904A	HP 642 1075mm Shock Intelligent Series Rack	1
2.		K2Q35A	HPE 3PAR StoreServ 8200 2N Storage Base	1
3.		K2Q35A 0D1	Factory Integrated	1
4.		K2P89A	HPE 3PAR StoreServ 8000 1.92TB SAS SFF (2.5in) Solid State Drive	6
5.		K2P89A 0D1	Factory integrated	6
6.		L7B45A	HP 3PAR 8200 Operating System Suite Base LTU	1
7.		L7B45A 0D1	Factory integrated	1
8.		L7B46A	HP 3PAR 8200 Operating System Suite Drive LTU	6
9.		L7B46A 0D1	Factory integrated	6
10.		BW904A 001	HP 642 1075mm Shock Intelligent Series Rack	1
11.		TK808A	HP Rack Front Door Cover Kit	1
12.		TK808A 0D1	Factory Integrated	1
13.		H5M68A	HP 7.3kVA 230 Volt 20 Outlet INTL Basic Power Distribution Unit	4
14.		H5M68A 0D1	Factory Integrated	4
15.		BW906A	HP 42U 1075mm Side Panel Kit	1
16.		BW906A 0D1	Factory integrated	1

17.		HA114A1	HP Installation and Startup Service	1
18.		HA114A1 5XP	HPE Startup 3PAR 8200 2N Storage Bas SVC	1
19.		HA113A1	HP Installation Service	1
20.		HA113A1 5BY	Rack and Rack Options Installation	1
21.		BD362AAE	HP 3PAR StoreServ Mgmt/Core SW E-Media	1
22.		BD363AAE	HP 3PAR 7000/7450 OS Suite E-Media	1
23.		H4396B	HP No Additional Support Required	1
24.		HA124A1	HP Technical Installation Startup SVC	1
25.		HA124A1 5Y5	HP Startup 3PAR 8000 System Reporter SVC	1

### B.10.3 Cabling and Spares

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.		AJ837A	HP 15m Multi-mode OM3 LC/LC FC Cable	1
2.		AJ836A	HP 5m Multi-mode OM3 LC/LC FC Cable	1
3.		K2P91A	HPE 3PAR 8000 3.84TB SFF SSD	1
4.		K2P89A	HPE 3PAR StoreServ 8000 1.92TB SAS SFF (2.5in) Solid State Drive	1

### B.10.4 Veeam Backup and Replication Software

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.		P-VBRPLS-VS-P0000-00	Veeam Backup & Replication Enterprise Plus for VMware - Public Sector	1

### B.10.5 Veeam Availability Suite Software

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.		P-VASPLS-VS-P0000-00	Veeam Availability Suite Enterprise Plus for VMware - Public Sector	1

### B.10.6 GRID Graphics licenses

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.		711-5GRID-VWS0-002	GRID vWS Perpetual License, 1 CCU	1

### B.10.7 GRID Graphics Support

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.		712-5GRID-VWS0-NP0	GRID vWS Prod SUMS 1st year 1CCU	1



**B.10.8 GRID Installation**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.		UNI_INSTALL	Installation service of Nvidia Grid licenses.	1

**B.11 Palo Alto Networks PA-3260 with redundant AC power supplies**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.		PAN-PA-3260	Palo Alto Networks PA-3260 with redundant AC power supplies	1
2.		PAN-SVC-PREM-3260	Premium support year 1, PA-3260	1

**B.12 Cohesity cluster of 4 x DL380-96TB**

#	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
		(total of 256TiB native usable capacity), 2 x FC connection per server ; 2 x Eth connection per server ; 3Y Cohesity Data Platform Subscription Based licenses; 256TiB Cohesity Data Protect licenses (3Y subscription based)	
1	R0Q31A	HPE ProLiant DL380 Gen10 96TB Server for Cohesity DataPlatform	1
2	R2E09A	HPE SN1610Q 32Gb 2-port Fibre Channel Host Bus Adapter	1
3	R2E09A 0D1	Factory Integrated	1
4	817709-B21	HPE Ethernet 10/25Gb 2-port 631FLR-SFP28 Adapter	1
5	817709-B21 0D1	Factory Integrated	1
6	455883-B21	HPE BladeSystem c-Class 10Gb SFP+ SR Transceiver	2
7	455883-B21 0D1	Factory Integrated	2
8	R3P27AAE	Cohesity Small Cluster Onsite Installation Service	1
9	R1Y24AAE	Cohesity DataPlatform Standard Edition 1TB 3yr Subscription and Support E-LTU	64
10	R1Y54AAE	Cohesity DataProtect 1TB Add-on 3yr Subscription and Support E-LTU	64
11	HA113A1	HPE Installation SVC	1
12	HA113A1 5A6	HPE 300 Series Installation Service	1
13	HT7A6A3	HPE 3Y DC 24x7 wDMR Addon SVC	1
14	HT7A6A3 WAH	HPE DL38x Gen10 Support	1

**B.13 Qumulo cluster of 4 x Apollo4200-Gen10-90TB**

#	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
		(total of 200TB usable capacity) with 3Y subscription-based licenses	

1	R3W48A	HPE Apollo 4200 Gen10 90TB Hybrid Node for Qumulo	1
2	817753-B21	HPE Ethernet 10/25Gb 2-port 640SFP28 Adapter	1
3	817753-B21 0D1	Factory Integrated	1
4	R0G89AAE	Qumulo Installation and Advanced Training Service per Day	1
5	R0G83AAE	Qumulo File Fabric 1TB Tier H1 36-month Subscription and Support E-LTU	90
6	HA113A1	HPE Installation SVC	1
7	HA113A1 58Y	HPE Apollo 2000/4200 Install Service	1
8	HT7A6A3	HPE 3Y DC 24x7 wDMR Addon SVC	1
9	HT7A6A3 XMZ	HPE Apollo 4200 Gen10 Support	1
10	JL294A	HPE X240 25G SFP28 to SFP28 1m Direct Attach Copper Cable	2

**B.14 Scalify cluster of 3 x Apollo4200-Gen10-160TB**

#	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
		(total of 355TB usable capacity) with Scalify Hardware Lifetime Licenses	
1	P07244-B21	HPE Apollo 4200 Gen10 24LFF Configure-to-order Server	1
2	P07904-L21	Intel Xeon-Silver 4210 (2.2GHz/10-core/85W) FIO Processor Kit for HPE Apollo 4200 Gen10.	1
3	P07904-B21	Intel Xeon-Silver 4210 (2.2GHz/10-core/85W) Processor Kit for HPE Apollo 4200 Gen10	1
4	P07904-B21 0D1	Factory Integrated	1
5	P00924-K21	HPE 32GB (1x32GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	6
6	P00924-K21 0D1	Factory Integrated	6
7	P07943-B21	HPE Apollo 4200 Gen10 4LFF Rear Drive Cage Kit	1
8	P07943-B21 0D1	Factory Integrated	1
9	833926-K21	HPE 2TB SAS 12G Midline 7.2K LFF (3.5in) LP 1yr Wty Digitally Signed Firmware HDD	2
10	833926-K210D1	Factory Integrated	2
11	P04531-K21	HPE 800GB SAS 12G Mixed Use LFF (3.5in) LPC 3yr Wty Digitally Signed Firmware SSD	2
12	P04531-K21 0D1	Factory Integrated	2
13	P23608-K21	HPE 16TB SAS 12G Business Critical 7.2K LFF (3.5in) LP 1yr Wty 512e ISE HDD	10
14	P23608-K21 0D1	Factory Integrated	10
15	P01367-B21	HPE 96W Smart Storage Lithium-ion Battery with 260mm Cable Kit	1
16	P01367-B21 0D1	Factory Integrated	1
17	869083-B21	HPE Smart Array P816i-a SR Gen10 (16 Int Lanes/4GB Cache/Smart Cache) 12G SAS Modular LH Controller	1
18	869083-B210D1	Factory Integrated	1
19	727055-B21	HPE Ethernet 10Gb 2-port 562SFP+ Adapter	1
20	727055-B210D1	Factory Integrated	1
21	865414-B21	HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	2

22	865414-B210D1	Factory Integrated	2
23	813546-B21	HPE 2nd Cage FIO Controller Mode for Rear Storage	1
24	822640-B21	HPE Apollo 4200 Gen9 FIO Strap Shipping Bracket	1
25	822731-B21	HPE 2U Shelf-Mount Adjustable Rail Kit	1
26	822731-B21 0D1	Factory Integrated	1
27	AC114A	HPE ProLiant Door/dock Medium Logistic Service	1
28	P8Y95AAE	Scality RING Installation Package (up to 3 Geographical Sites) E-LTU	1
29	P8Z01AAE	Scality RING 24/7 Maintenance and Support Single Site per TB (Min 200TB) per year E-LTU	355
30	P8Y90AAE	Scality RING Single Site Hardware Lifetime License per TB (Min 200TB) E-LTU for HPE Servers	119
31	JL271A	HPE X240 100G QSFP28 to QSFP28 1m Direct Attach Copper Cable	2
32	HA113A1	HPE Installation SVC	1
33	HA113A1 58Y	HPE Apollo 2000/4200 Install Service	1
34	HT7A6A3	HPE 3Y DC 24x7 wDMR Addon SVC	1
35	HT7A6A3 XMZ	HPE Apollo 4200 Gen10 Support	1

### B.15 Network Equipment Cabinet

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.		5500009 / MODNL	Network rack 800x2000x1200mm	1
2.			Cabinet based on TS-IT	1
3.			Size 800x2000x1200mm (WxHxD) 42HE	1
4.			Color RAL 7035 (light gray) cabinet frame and plate parts Color RAL 9005 (black) interior design	1
5.			Cabinet will be provided with:	
6.			Perforated, vertically divided, frontdoor,	1
7.			(vented surface area approx. 85% perforated)	1
8.			Doors equipped with single-cylinder comfort handle with cylinder locks 3524E and 180 ° hinges	1
9.			Perforated, vertically divided, rear door, (vented surface area approx. 85% perforated)	1
10.			Doors equipped with single-cylinder comfort handle with cylinder locks 3524E and 180 ° hinges	1
11.			Base open	1
12.			Two 482.6 mm (19") mounting sections front and rear, variably mounted on support strips with quick-release fasteners, HE coding on all 19"	1
13.			profiles, statically loadable up to 1500kg	1
14.			Air baffle plates around the 19 inch as a partition between the hot and cold sides, including 6x 1HE blanking panel	1
15.			Roof plate, multi-piece, removable, with side cable entry in the depth	1
16.			and covered cut-out for fan mounting plate	1
17.			shipped on pallet.	1
18.			Loose provided in the cabinet:	

19.			component shelf DK 5501685, depth adjustable 600-900mm (loadable up to 50kg)	1
20.			spacers to raise the fan cover plate	4
21.			set potential equalisation set	1
22.			cage nuts and multi-tooth screws M5 1x bottomplate + mountingkit	50
23.			cabletray 300mm	2
24.			levelling feet	4
25.			Baying kit	1
26.			cable guide bracket 120x80mm	10

## B.16 Server Equipment Cabinet

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.		5500009 / MODNL	Server rack 600x2000x1200mm	1
2.			Cabinet based on TS-IT	1
3.			Size 600x2000x1200mm (WxHxD) 42HE	1
4.			Color RAL 7035 (light gray) cabinet frame and plate parts	1
5.			Color RAL 9005 (black) interior design	1
6.			Cabinet will be provided with:	
7.			Perforated frontdoor, right hinged (vented surface area approx. 85% perforated)	1
8.			Doors equipped with single-cylinder comfort handle with cylinder locks	1
9.			3524E and 180 ° hinges	1
10.			Perforated, vertically divided, rear door, (vented surface area approx. 85% perforated)	1
11.			Doors equipped with single-cylinder comfort handle with cylinder locks 3524E and 180 ° hinges	1
12.			Base open	1
13.			Two 482.6 mm (19") mounting sections front and rear, variably mounted on support strips with quick-release fasteners, HE coding on all 19" profiles, statically loadable up to 1500kg	1
14.			Roof plate, multi-piece, removable, with side cable entry in the depth and covered cut-out for fan mounting plate	1
15.			Shipped on pallet.	1
16.			Loose provided in the cabinet:	
17.			spacers to raise the fan cover plate	4
18.			set potential equalisation set	1
19.			cage nuts and multi-tooth screws M5	50
20.			bottomplate + mountingkit	1
21.			levelling feet	4
22.			Baying kit	1
23.			cable guide bracket 80x40mm	10
24.			set Air baffle plates	1

### B.16.1 Side Panel Div. 2000x1200

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.		5501040	Side panel div. 2000x1200	1
			RAL7035 VE=1	
			HB35 PG. 645	

**B.16.2 Divider Panel**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.		7030324	Divider panel H2000xD1200	1

**B.16.3 1U Blanking Panels**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.		XNL003831	Blanking panel 1U	1
2.			RAL 9005	

**B.16.4 2U Blanking Panels**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.		XNL003832	Blanking panel 2U	1
2.			RAL 9005	

**B.16.5 6U Blanking Panels**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.		XNL003834	Blanking panel 6U	1
2.			RAL 9005	

**B.17 Cold Aisle Containment System (7 Aisles) 47U**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	<ul style="list-style-type: none"> <li>Free standing containment</li> </ul>	Each
2.	Usage	<ul style="list-style-type: none"> <li>Shall be used for separation of hot and cold airflows between rows of cabinets to improve energy efficiency and cooling performance/ reliability.</li> </ul>	Each
3.	Size	<ul style="list-style-type: none"> <li>Containment system shall enclose total 7 cold aisles.</li> <li>1 cold aisle is 9 x 800mm racks long and will have IT cabinets installed only on one side</li> <li>3 aisles are 1 x 800mm + 10 x 600mm racks long</li> </ul>	Each

		<ul style="list-style-type: none"> <li>• 3 aisles are 1 x 800mm + 13 x 600mm racks long, with one row being shorter due to an obstruction</li> <li>• All rows will have racks with a height between 42RU and 47RU which shall fit within the containment system</li> <li>• Racks shall be able to be easily removed and inserted into a row within the containment system (except containment cube #4)</li> <li>• For additional details refer to A.2 Equipment Room Floorplan</li> </ul>	
4.	Row 3-5 Containment	<ul style="list-style-type: none"> <li>• <b>Containment Cube #1</b></li> <li>• Length ± 6.80m, Height ± 2.35m, Width ± 1.20m, Free Height for the racks: 2215mm</li> <li>• Will have IT cabinets installed on both sides and be a flexible construction for a maximum height of 2215mm (47U) for 1 x 800mm + 10 x 600mm x 2000mm x 1200mm Racks</li> </ul>	Each
5.	Row 7-9 Containment	<ul style="list-style-type: none"> <li>• <b>Containment Cube #2</b></li> <li>• Length ± 6.80m, Height ± 2.35m, Width ± 1.20m, Free Height for the racks: 2215mm</li> <li>• Will have IT cabinets installed on both sides and be a flexible construction for a maximum height of 2215mm (47U) for 1 x 800mm + 10 x 600mm x 2000mm x 1200mm Racks</li> </ul>	Each
6.	Row B-D Containment	<ul style="list-style-type: none"> <li>• <b>Containment Cube #3</b></li> <li>• Length ± 6.80m, Height ± 2.35m, Width ± 1.20m, Free Height for the racks: 2215mm</li> </ul>	Each
		<ul style="list-style-type: none"> <li>• Will have IT cabinets installed on both sides and be a flexible construction for a maximum height of 2215mm (47U) for 1 x 800mm + 10 x 600mm x 2000mm x 1200mm Racks</li> </ul>	
7.	Row 0 Containment	<ul style="list-style-type: none"> <li>• <b>Containment Cube #4</b></li> <li>• Length ± 7.40m, Height ± 2.20m, Width ± 1.20m, Free Height for the racks: 2000mm (static)</li> <li>• Shall have IT cabinets installed only on one side and be of Non-Flexible (static) construction with a raised cube construction for 1 x 800mm + 11 x 600mm x 2000mm x 1200mm Racks</li> </ul>	Each
8.	Row 2-4 Containment	<ul style="list-style-type: none"> <li>• <b>Containment Cube #5</b></li> <li>• Length ± 8.60m, Height ± 2.35m, Width ± 1.20m, Free Height for the racks: 2215mm</li> <li>• Will have IT cabinets installed on both sides and be a flexible construction for a maximum height of 2215mm (47U) for 1 x 800mm + 13 x 600mm x 2000mm x 1200mm Racks</li> </ul>	Each
9.	Row 6-8 Containment	<ul style="list-style-type: none"> <li>• <b>Containment Cube #6</b></li> <li>• Length ± 8.60m, Height ± 2.35m, Width ± 1.20m, Free Height for the racks: 2215mm</li> <li>• Will have IT cabinets installed on both sides</li> </ul>	Each

		and be a flexible construction for a maximum height of 2215mm (47U) for 1 x 800mm + 13 x 600mm x 2000mm x 1200mm Racks	
10.	Row A-C Containment	<ul style="list-style-type: none"> <li>● <b>Containment Cube #7</b></li> <li>● Length ± 8.60m, Height ± 2.35m, Width ± 1.20m, Free Height for the racks: 2215mm</li> <li>● Will have IT cabinets installed on both sides and be a flexible construction for a maximum height of 2215mm (47U) for 1 x 800mm + 13 x 600mm x 2000mm x 1200mm Racks</li> </ul>	Each
11.	Compliant standards	<ul style="list-style-type: none"> <li>● CE</li> <li>● EU Code of Conduct for Data Centres - best practices</li> <li>● CLC/TR 50600-99-1:2016 Recommended practices for energy management</li> </ul>	Each
12.	Physical Requirements	<ul style="list-style-type: none"> <li>● The containment system shall consist of:</li> <li>● Free standing frame – basic self-supporting containment frame.</li> </ul>	Each
		<ul style="list-style-type: none"> <li>● Active pivot roof</li> <li>● Sliding door system at each end of aisle</li> <li>● Corridor Walls &amp; Vertical panels</li> <li>● The system shall integrate the following systems without any special parts or modifications                             <ul style="list-style-type: none"> <li>○ (server) cabinets with:                                     <ul style="list-style-type: none"> <li>▪ Roofs with cable duct system</li> <li>▪ Cut outs in roofs for cable entry</li> </ul> </li> <li>○ Row based cooling</li> <li>○ Monitoring system</li> <li>○ Gas based Fire Suppression &amp; Detection system</li> <li>○ Access control</li> </ul> </li> <li>● All visible metallic parts shall be powder coated to Industry Standard Light/neutral colours such as light grey and white are preferred)</li> <li>● The standard cold aisle widths shall be covered by the containment system, and have an aisle width of 1200 mm net</li> <li>● The standard free height under the construction shall be 2200 mm minimum</li> </ul>	
13.	Identification	<ul style="list-style-type: none"> <li>● [Contractor to provide aisle labelling]</li> </ul>	Each
14.	Free standing frame	<ul style="list-style-type: none"> <li>● The free standing frame shall consist of two sheet metal, rigid door portals on the beginning and the end of the construction and modular, sheet metal beam sections. The beam sections shall be properly bolted into position. The total construction shall be completely earthed with a central point to connect to building earth.</li> </ul>	Each

		<ul style="list-style-type: none"> <li>• The minimum length of the free standing frame shall be 1800 mm, expandable with 600 mm sections</li> <li>• The maximum length of the free standing frame shall be 17400 mm or more</li> <li>• Between the portals, it shall be allowed to use vertical supports; these supports shall be able to be repositioned without the use of tools. It shall not be possible to put the supports in a position resulting in an unsafe situation. Vertical supports shall be earthed to the construction at all times.</li> <li>• The roof girders shall be used as a structural support for the free standing frame.</li> </ul>	
15.	Pivot roof	<ul style="list-style-type: none"> <li>• The roof shall be designed to allow the roof panels to open automatically by means of rotating panels to allow fire suppression gas to enter the containment construction in case of activation</li> <li>• The pivot roof system must include a test function</li> <li>• The activation shall done by the fire detection panel. The fire detection panel can be triggered by smoke, heat or other means</li> </ul>	Each
16.	Sliding door	<ul style="list-style-type: none"> <li>• A double door system shall close the front of the aisles by means of two sliding door panels. The door panels shall be equipped with safety glass panels to ensure people's safety and shall allow ambient light to enter the containment system as well as to have the ability to see inside the aisles form outside</li> <li>• The door system shall be equipped with a mechanical locking system and door positioning detection</li> <li>• The door panels shall be properly guided on the top and bottom of the panels. It shall be allowed to use the floor construction to place guide rails and other supporting equipment</li> <li>• The doors shall be mechanically synchronised and shall be opened by using simple door handles. When closing the doors, a soft closing mechanism shall prevent the doors from bumping to each other unexpectedly. Releasing the door panels in any position outside the closed position, will result in the system to close automatically</li> </ul>	Each
17.	Corridor walls – floor or	<ul style="list-style-type: none"> <li>• It shall be possible to fill gaps between or above cabinets using flexible wall panels</li> </ul>	Each



	cabinet to frame	<ul style="list-style-type: none"> <li>• Wall panels width shall be available in the following widths: 300, 600, 800 and 1200 mm</li> <li>• It shall be possible to adapt the panel on site using simple hand tools. The panels shall be finished in the same colour as the metallic parts</li> <li>• The panels shall be made from either sheet metal or sandwich composite material with smooth finishing</li> <li>• The panels shall be able to be used to close aisle front or back side (instead of sliding door system)</li> <li>• It shall be possible to place a re-usable cross wall to temporarily close the aisle somewhere between the front and the back of the aisle</li> <li>• Walls and panels shall be properly sealed to prevent air leakage. It shall be allowed to use the floor construction to place/ mount rails and other supporting equipment</li> </ul>	
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**B.18 Managed Rack Power Distribution Unit (PDU)**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.		7955311	PDUi Switched 1xF32A, 24xC13, 4xC19	1
2.			HB35 Pg. 503	

**B.19 Cableduct 200x146x598**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.		1196600	Cableduct 200x146x598	1

**B.20 Cableduct 200x146x798**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.		1196601	Cableduct 200x146x798	1

**B.21 End piece cableduct 200x146**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.		1196613	End piece cableduct 200x146	1

### B.22 End User Access Switch (Copper)

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Configuration	<ul style="list-style-type: none"> <li>• DELL 3148P PoE Switch</li> <li>• L3, PoE+, 48x 1GbE, 2x 10GbE, 1x 1100w AC PS</li> <li>• User Guide</li> <li>• Power Cord, 250V, C14 to C15</li> <li>• Stacking Cable, 0.5m</li> </ul>	1
2.	Support	<ul style="list-style-type: none"> <li>• Lifetime limited Warranty NBD 5 Year</li> <li>• ProSupport NBD Onsite 5 Year</li> <li>• ProSupport 7X24 HW/SW Tech Support 5 Year</li> </ul>	1

### B.23 End User Access Switch (Fibre)

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Configuration	<ul style="list-style-type: none"> <li>• DELL S3124F</li> <li>• S3124F L3, 24x 1GbE, 1x AC PSU</li> <li>• User Guide</li> <li>• Power Supply 200W, S3124/S3148</li> <li>• Jumper cord 250V, 12A, 2 Meters, C13/C14</li> </ul>	1
2.	Support	<ul style="list-style-type: none"> <li>• Lifetime limited Warranty NBD 5 Year</li> <li>• ProSupport NBD Onsite 5 Year</li> <li>• ProSupport 7X24 HW/SW Tech Support 5 Year</li> </ul>	1

### B.24 OOB Management Switch (48 Port)

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Configuration	<ul style="list-style-type: none"> <li>• DELL S3048 Switch</li> <li>• 48x 1GbE, 4x SFP+ 10GbE, 1x AC PSU</li> <li>• User Guide</li> <li>• Power Supply, 200w, PSU S3048-ON</li> <li>• Jumper cord 250V, 12A, 2 M, C13/C14</li> </ul>	1
2.	Support	<ul style="list-style-type: none"> <li>• Lifetime limited Warranty NBD 5 Year</li> <li>• ProSupport NBD Onsite 5 Year</li> <li>• ProSupport 7X24 HW/SW Tech Support 5 Year</li> </ul>	1

### B.25 OOB Management Switch (24 Port)

#	Item	Specification	Quantity of sub-elements needed
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			<b>for full Configuration<sup>1</sup></b>
1.	Configuration	<ul style="list-style-type: none"> <li>• DELL N1124T-ON Switch</li> <li>• 24x 10/100/1000Mbps half/full duplex RJ45 ports</li> <li>• 4x SFP/SFP+ 1/10GbE ports</li> <li>• 1 RU switch form factor</li> <li>• User Guide</li> <li>• Power cord 250V, 2 M, C13/14</li> </ul>	1
2.	Support	<ul style="list-style-type: none"> <li>• 5 Years Basic Hardware Warranty Repair</li> </ul>	1

## B.26 DC Spine Switch

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Configuration	<ul style="list-style-type: none"> <li>• DELL S6100 Switch</li> <li>• S6100-ON, 100/50/40/25/10GbE, 2x AC PSU</li> <li>• 16 x 40GbE QSFP+ ports Module</li> <li>• Blank Module Panel</li> <li>• User Guide</li> <li>• Jumper cord 250V, 12A, 2 Meters, C13/C14</li> <li>• User Guide</li> </ul>	1
2.	Support	<ul style="list-style-type: none"> <li>• Lifetime limited Warranty NBD 5 Year</li> <li>• ProSupport NBD Onsite 5 Year</li> <li>• ProSupport 7X24 HW/SW Tech Support 5 Year</li> </ul>	1

## B.27 Core Aggregation TOR Switch

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Configuration	<ul style="list-style-type: none"> <li>• DELL S4048 Switch</li> <li>• S4048-ON, 48x 10GbE SFP+ and 6x 40GbE QSFP+ ports, 1x AC PSU</li> <li>• User Guide</li> <li>• Power Supply AC, 460W</li> <li>• Jumper cord 250V, 12A, 2 Meters, C13/C14</li> <li>• Cable, QSFP+ to QSFP+, Direct Attach Cable 0.5 m</li> <li>• Transceiver SFP+, 850nm, 12-pack</li> </ul>	1
2.	Support	<ul style="list-style-type: none"> <li>• Lifetime limited Warranty NBD 5 Year</li> <li>• ProSupport NBD Onsite 5 Year</li> <li>• ProSupport 7X24 HW/SW Tech Support 5 Year</li> </ul>	1

## B.28 SFP Transceiver

### B.28.1 SFP Transceiver 10GbE Single Mode

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Configuration	<ul style="list-style-type: none"> <li>Dell Transceiver, SFP+, 10GbE, LR, 1310nm Wavelength, 10km</li> </ul>	1

### B.28.2 SFP Transceiver 10GbE Multi Mode

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Configuration	<ul style="list-style-type: none"> <li>Dell Transceiver, SFP+, 10GbE, SR, 850nm Wavelength, 300m</li> </ul>	1

### B.28.3 SFP Transceiver 1GbE Multi Mode

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Configuration	<ul style="list-style-type: none"> <li>Dell Transceiver, SFP, 1000BASE-SX, 850nm Wavelength, 550m Reach</li> </ul>	1

### B.28.4 SFP Transceiver 100Mb Multi Mode

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Configuration	<ul style="list-style-type: none"> <li>Dell Transceiver, SFP, 100BASE-SX, 850nm Wavelength, 550m Reach</li> </ul>	1

## B.29 Fibre Patch Cables

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
29.1	Configuration	<ul style="list-style-type: none"> <li>OS2-9/125 SM LC-LC Patch Cable, 1M</li> </ul>	
29.2		<ul style="list-style-type: none"> <li>OS2-9/125 SM LC-LC Patch Cable, 2M</li> </ul>	
29.3		<ul style="list-style-type: none"> <li>OS2-9/125 SM LC-LC Patch Cable, 3M</li> </ul>	
29.4		<ul style="list-style-type: none"> <li>OS2-9/125 SM LC-LC Patch Cable, 5M</li> </ul>	
29.5		<ul style="list-style-type: none"> <li>OS2-9/125 SM LC-LC Patch Cable, 10M</li> </ul>	
29.6		<ul style="list-style-type: none"> <li>OM4-50/125 MM LC-LC Patch Cable, 1M</li> </ul>	
29.7		<ul style="list-style-type: none"> <li>OM4-50/125 MM LC-LC Patch Cable, 2M</li> </ul>	
29.8		<ul style="list-style-type: none"> <li>OM4-50/125 MM LC-LC Patch Cable, 3M</li> </ul>	
29.9		<ul style="list-style-type: none"> <li>OM4-50/125 MM LC-LC Patch Cable, 5M</li> </ul>	
29.10		<ul style="list-style-type: none"> <li>OM4-50/125 MM LC-LC Patch Cable, 10M</li> </ul>	
29.11		<ul style="list-style-type: none"> <li>Fiber Optic Cable - LC to LC - OS2 - 2 meters – Yellow Part number: 1170857</li> </ul>	

29.12		<ul style="list-style-type: none"> <li>Fiber Optic Cable - LC to LC - OS2 - 3 meters – Yellow Part number: 1170859</li> </ul>	
29.13		<ul style="list-style-type: none"> <li>Fiber Optic Cable - LC to LC - OS2 - 5 meters – Yellow Part Number 1170860</li> </ul>	
29.14		<ul style="list-style-type: none"> <li>Fiber Optic Cable - LC to LC - OM4 - 5 meters – Purple Part Number 1170798</li> </ul>	
29.15		<ul style="list-style-type: none"> <li>Fiber Optic Cable - LC to LC - OM4 10 meters – Purple Part Number 170793</li> </ul>	

### B.30 Patch Cables

#### B.30.1 CAT6A SFTP Copper Patch Cable

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	Configuration	<ul style="list-style-type: none"> <li>CAT6A S-FTM Patch Cable, 0.5M</li> </ul>	1

#### B.30.2 CAT6A S-FTM Patch Cable, 1M

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	Configuration	<ul style="list-style-type: none"> <li>CAT6A S-FTM Patch Cable, 1M</li> </ul>	1

#### B.30.3 CAT6A S-FTM Patch Cable, 2M

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	Configuration	<ul style="list-style-type: none"> <li>CAT6A S-FTM Patch Cable, 2M</li> </ul>	1

#### B.30.4 CAT6A S-FTM Patch Cable, 3M

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	Configuration	<ul style="list-style-type: none"> <li>CAT6A S-FTM Patch Cable, 3M</li> </ul>	1

#### B.30.5 CAT6A SFTP patch cables black (NU) 1M

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	Configuration	CAT6A SFTP patch cables black (NU) 1M Network cable Black 1m S/FTP CAT 6A (PiMF) LSZH, Connection 1: RJ45 Male, Connection 2: RJ45 Male Part Number: 1286806	1

#### B.30.6 CAT6A SFTP patch cables black (NU) 3 M

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
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1	Configuration	CAT6A SFTP patch cables black (NU) 3 M Network cable Black 3m, S/FTP CAT 6A (PiMF) LSZH, Connection 1: RJ45 Male, Connection 2: RJ45 Male, Part Number: 1286809	
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**B.30.7 CAT6A SFTP patch cables black (NU) 5M**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	Configuration	<b>CAT6A SFTP patch cables black (NU) 5M</b> VALUE Patchkabel Kat.6A S/FTP (PiMF), black, 5,0 m Part Number: 21991965	1

**B.30.8 CAT6A SFTP patch cables black (NU) 7.5M**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	Configuration	CAT6A SFTP patch cables black (NU) 7.5M Network cable black 7.5m, S/FTP CAT6A (PiMF), LSZH, Connection 1: RJ45 Male, Connection 2: RJ45 Mal Part Number: Part Number	1

**B.30.9 CAT6A SFTP patch cables black (NU) 10M**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	Configuration	CAT6A SFTP patch cables black (NU) 10M Network cable black 10m, S/FTP CAT 6A (PiMF) LSZH, Connection 1: RJ45 Male, Connection 2: RJ45 Male Part Number: 1285657	1

**B.30.10 CAT6A SFTP patch cables black (NU)**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	Configuration	Network cable Black, 15M CAT 6A S / FTP (PiMF) LSZH Connection 1 RJ45 Male Connection 2 RJ45 Male Part Number: 1285750	1

**B.30.11 CAT6A SFTP patch cables black (NU)**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	Configuration	Network cable Black 20M CAT 6A S / FTP (PiMF) LSZH Connection 1 RJ45 Male Connection 2 RJ45 Male Part Number: 1285751	1

**B.31 Dell EMC NX3240**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Configuration	<b>Part Number: NX3240</b> Dell EMC NX3240, Dual Intel Xeon Silver 4114 2.2G, 64GB Mem, Performance Config Microsoft Windows Storage Server 2016 Standard Edition C13, RAID 6 for 4 or more HDDs or SSDs (Matching Type/Speed/Capacity)	1
		600GB 10K RPM SAS 12Gbps 512n 2.5in Flex Bay Hard Drive, 3.5in HYB CARR 4TB 7.2K RPM NLSAS 12Gbps 512n 3.5in Hot-plug Hard Drive Dual, Hot-plug, Redundant Power Supply (1+1), 1100W No Power Cord Intel X710 Quad Port 10Gb DA/SFP+	
		Ethernet, Network Daughter Card iDRAC9,Enterprise Trusted Platform Module 2.0 ReadyRails™ Sliding Rails Without Cable Management Arm 8X DVD-ROM, USB, External iDRAC,Legacy Password 5 Years ProSupport Plus Next Business Day Onsite Service No Installation Keep Your Hard Drive, 5 Years	

**B.32 1000 BASE-T SFP Copper RJ-45 100m Transceiver Module**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Configuration	Part Number: 310-7225	1

**B.33 HPE 3PAR 8440 4N 24x3.84TB**

#	Part Number	Specification	Quantity of sub-elements
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			needed for full Configuration <sup>1</sup>
1.	H6Z13B	HPE 3PAR 8440 4N+SW Storage Field Base	1
2.	K2P91B	HPE 3PAR 8000 3.84TB+SW SFF SSD	24
3.	H6Z00A	HPE 3PAR 8000 4-pt 16Gb FC Adapter	4
4.	E7Y71A	HPE 3PAR 8000 SFF(2.5in) Fld Int Dr Encl	2
5.	QK734A	HPE Premier Flex LC_LC OM4 2f 5m Cbl	8
6.	HA124A1	HPE Technical Installation Startup SVC	1
7.	HA124A1#5 XY	HPE Startup 3PAR 8000 Adapter SVC	4
8.	HA124A1#5 Y0	HPE Startup 3PAR 8K Fld Drv-Drv Enc SVC	2
9.	HA114A1	HPE Installation and Startup Service	1
10.	HA114A1#5 XZ	HPE Startup 3PAR 8000 Fld Int Dr Enc SVC	2
11.	HA114A1#5 XW	HPE Startup 3PAR 84XX 4N Fld Int Bas SVC	1
12.	H0JD6A1	HPE 3PAR SSD Extended Replacement SVC	24
13.	H1K93A3	HP 3Y 4 hr 24x7 w DMR Proactive Care SVC	1
14.	H1K93A3 X7R	HPE 3PAR 8440 4N+SW Storage Base Support	1
15.	H1K93A3 X8L	HPE 3PAR 8000 3.84TB+SW SFF SSD Supp	24
16.	H1K93A3 YTJ	HPE 3PAR 8000 Drive Encl Support	2
17.	H1K93A3 YTL	HPE 3PAR 8000 4-pt 16Gb FC Adapter Supp	4

**B.34 VALUE DisplayPort Cable DP Male - DVI (24+1) Male, Black,1,0 m**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Configuration	Part Number: 11.99.5613	1

**B.35 100BaseFX\2km\1310nm\Multi-Mode Fibre (Optical Fiber)**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Configuration	Part Number: AT-SPFX/2-901	1

**B.36 VALUE F.O. Cable 50/125µm, LC/SC, OM3, Turquoise, 2,0 m**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Configuration	Part Number: 21.99.8712	1

**B.37 Stacking Cable, for Dell Networking N2000/N3000/S3100 series switches (no cross-series stacking) 0.5m**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Configuration	Part Number: 470-ABHB	1

**B.38 Dell Networking, Transceiver, SFP, 1000BASE-T - Customer Kit**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
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1.	Configuration	Part Number: 407-BBOS	1
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**B.39 CORNING-C E797902QNZ20001 2F EDGE UNIBOOT MM 50/125 OM4 LC/LC DUPX REVERSE POLAR 1M E797902QNZ20001M**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Configuration	Part Number: 449756	1

**B.40 VALUE Patchkabel Kat.6A S/FTP (PiMF), black, 1,0 m**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Configuration	Part Number: 21.99.1961	1

**B.41 DK Cable channel, 38 HE TS IT / TE 8000**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Configuration	Part Number: 5502100	1

**B.42 Tripp lite Plug Lock**

**B.42.1 Tripp lite PLC13RD Plug Lock C13 Red (box of 100 pieces)**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Configuration	Part Number: PLC13RD	1

**B.42.2 Tripp lite PLC13BL Plug Lock C13 Blue (box of 100 pieces)**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Configuration	Part Number PLC13BL	1

**B.42.3 Tripp lite PLC13BK Plug Lock C13 Black (box of 100 pieces)**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Configuration	Part Number PLC13BK	1

**B.42.4 Tripp lite PLC13BK Plug Lock C13 Black (box of 100 pieces)**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Configuration	Part Number: PLC19BK	1

**B.43 SRX300 Junos Software Base Configuration**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.		SRX300-JSB	SRX300 Junos Software Base with Firewall NAT IPsec Routing MPLS and Switching Services (must order SRX300 to complete the system)	1
2.		SVC-COR-SRX300JSB	Juniper Care Core Support for SRX300-JSB 12 months	1

**B.44 SRX300 Junos Software Enhanced Configuration**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.		SRX300-JSE	SRX300 Junos Software Enhanced with Firewall NAT IPsec Routing Switching MPLS and Application Security Services (must order SRX300 to complete the system)	1
2.		SVC-COR-SRX300JSE	Juniper Care Core Support for SRX300-JSE 12 months	1

**B.45 NetApp Hardware & Software FAS2750A**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Configuration	Part Number: FAS2750A-002-SC	FAS2750A Premium Bundle [Cat: D]	1
2.	Configuration	Part Number: FAS2750A-EXP-153	FAS2750,HA,24X1.2TB,Premium Bundle, NVE CNA [Cat: D]	1
3.	Configuration	Part Number: X800-42U-R6	Power Cable,In-Cabinet,C13-C14 [Cat: C]	1
4.	Configuration	Part Number: X-02659-00	Rail Kit,4-Post,Rnd/Sq-Hole,Adj,24-32 [Cat: D]	1
5.	Configuration	Part Number: X-SFP-H10GB-CU1M-R6	Cisco N50XX 10GBase Copper SFP+cable,1m,-C,R6	2
6.	Configuration	Part Number: X-SFP-H10GB-CU3M-R6	Cable,Cisco 10GBase Copper SFP+ 3m [Cat: C]	2
7.	Configuration	Part Number: SW-2-2750A-NVE-C	SW,Data at Rest Encryption Enabled,2750A,-C [Cat: N]	2
8.	Configuration	DATA-AT-REST-ENCRYPTION	Data at Rest Encryption Capable Operating Sys [Cat: N]	2
9.	Configuration	Part Number: SW-PREMIUM-SAS-01-P	SW,Per- .1TB,Premium,SAS,01,-P [Cat: K]	288
10.	Configuration	Part Number: SW-2-CL-BASE	SW-2,Base,CL,Node	1
11.	Configuration	Part Number: SW-2-2750A-TPM-C	SW,Trusted Platform Module Enabled,2750A,-C [Cat: N]	2

**B.45.1 NetApp support for FAS2750 (3 year, 7x24, 4hrs onsite)**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Configuration	Part Number: CS-BASE-SUPPORT	Base Software Support [Cat: S]	1
2.	Configuration	Part Number: CS-NRD2-G	Non-Returnable Disk Plus,g [Cat: S]	1
3.	Configuration	Part Number: CS-SEC-4HR	SE Secure for Gvt,7x24,4hr Onsite [Cat: S]	1

**B.46 NetApp Hardware & Software FAS2720A**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Configuration	Part Number: FAS2720A-002-SC	FAS2720A Premium Bundle [Cat: D]	1
2.	Configuration	Part Number: FAS2720A-EXP-105	FAS2720,HA,12X4TB,Premium Bundle, NVE CNA [Cat: D]	1
3.	Configuration	Part Number: X800-42U-R6	Power Cable,In-Cabinet,C13-C14 [Cat: C]	1
4.	Configuration	Part Number: X-02657-00	Rackmount Kit,212C,4-post,Adj [Cat: D]	1
5.	Configuration	Part Number: X-SFP- H10GB-CU1M-R6	Cisco N50XX 10GBase Copper SFP+cable,1m,-C,R6	2
6.	Configuration	Part Number: X-SFP- H10GB-CU3M-R6	Cable, Cisco 10GBase Copper SFP+ 3m [Cat: C]	2

**B.46.1 NetApp support for FAS2720 (3 year, 7x24, 4hrs onsite)**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Configuration	Part Number: CS-BASE-SUPPORT	Base Software Support [Cat: S]	1
2.	Configuration	Part Number: CS-NRD2-G	Non Returnable Disk Plus,g [Cat: S]	1
3.	Configuration	Part Number: CS-SEC-4HR	SE Secure for Gvt,7x24,4hr Onsite [Cat: S]	1

**B.46.2 Option: SW, Per-0.1TB, Premium, NLSAS,01,-P [Cat: K]**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Configuration	Part Number: SW-2-2720A-NVE-C	SW,Data at Rest Encryption Enabled,2720A,-C [Cat: N]	1

2.	Configuration	Part Number: DATA-AT-REST-ENCRYPTION	Data at Rest Encryption Capable Operating Sys [Cat: N]	1
3.	Configuration	Part Number: SW-PREMIUM-NLSAS-01-P	SW,Per-0.1TB,Premium,NLSAS,01,-P [Cat: K]	240
4.	Configuration	Part Number: SW-2-CL-BASE	SW-2,Base,CL,Node	1
5.	Configuration	Part Number: SW-2-2720A-TPM-C	SW, Trusted Platform Module Enabled,2720A,-C [Cat: N]	1

**B.47 RESERVED**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>

**B.48 Rittal Server Equipment Cabinet**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	<ul style="list-style-type: none"> <li>Rittal Network/server enclosure TS IT with vented doors, preconfigured, with 482.6 mm (19") mounting frame (DK 5511.181), RAL 7035 (Light Grey), Width: 800 mm, Height: 2000 mm, Depth: 1200 mm.</li> </ul>	1

**B.48.1 Rittal Rack Cable Routing**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	<ul style="list-style-type: none"> <li>Rittal TS-IT Cableway 110xH2000-2200, (DK 5502.120)</li> </ul>	1

**B.48.2 Rittal 1U Blanking Panels**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	<ul style="list-style-type: none"> <li>Rittal Blanking Panel 1U (XNL003831)</li> </ul>	1

**B.48.3 Rittal 2U Blanking Panels**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	<ul style="list-style-type: none"> <li>Rittal Blanking Panel 2U (XNL003832)</li> </ul>	1

**B.48.4 Rittal Cable Management Panel**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>

1.	Type	<ul style="list-style-type: none"> <li>Rittal Cable Management Panel, Horizontal 19" (482.6 mm), 1U (5502205)</li> </ul>	1
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**B.48.5 Rittal Grounding Bar**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	<ul style="list-style-type: none"> <li>Rittal Grounding Bar, PE Rail for TS, TS IT, SE (7113000)</li> </ul>	1

**B.48.6 Rittal Screws and Nuts Hardware Pack**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	<ul style="list-style-type: none"> <li>Rittal Screws &amp; Nuts M6 Rail Hardware Pack (50 Pieces) (2092200)</li> </ul>	1

**B.48.7 Rittal Torx Screws Hardware Pack**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	<ul style="list-style-type: none"> <li>Rittal DK Torx screw M6x16 VE (50 Pieces) (7094140)</li> </ul>	1

**B.48.8 Rittal Velcro Cable Ties and Mount Pack**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	<ul style="list-style-type: none"> <li>Rittal DK Velcro holder RAL9005 (XNL5502155)</li> </ul>	1

**B.48.9 Rittal 5M Velcro Cable Management Pack**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	<ul style="list-style-type: none"> <li>Rittal IN Velcro roll 5m x16mm (2203400)</li> </ul>	1

**B.49 RecoverPoint for Unity XT AF [DellEMC RecoverPoint for UnityXT All Flash – EMEA**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	<ul style="list-style-type: none"> <li>RecoverPoint for Unity XT AF [DellEMC RecoverPoint for UnityXT AllFlash – EMEA (Part number: 210-ATUQ#1)</li> </ul>	1

**B.50 Unity 2U 25x2.5 DAE Field Rack AF [Unity 25x2.5 All- Flash DAE - EMEA**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	<ul style="list-style-type: none"> <li>Unity 2U 25x2.5 DAE Field Rack AF [Unity 25x2.5 All-Flash DAE - EMEA] (Part Number: 210-ASLD#2)</li> </ul>	1

**B.51 AppSync Unity AF [AppSync Basic -All-Flash - EMEA]**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	<ul style="list-style-type: none"> <li>AppSync Unity AF [AppSync Basic -All-Flash - EMEA] (Part Number: 210-ASON)</li> </ul>	1

**B.52 Unity 680F DPE 25x2.5" Dell Field Rack [Unity 680F All-Flash DPE - EMEA]**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	<ul style="list-style-type: none"> <li>Unity 680F DPE 25x2.5" Dell FieldRack [Unity 680F All-Flash DPE -EMEA] (Part Number: 210-ASKW)</li> </ul>	1

**B.53 Brocade 8\_16Gb FC Switch 12-pt Upg E-LTU**

**B.53.1 Brocade 8\_16Gb FC Switch 12-pt Upg E-LTU  
10:00:C4:F5:7C:38:BA:61**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	<ul style="list-style-type: none"> <li>Brocade 8_16Gb FC Switch 12-pt Upg E- LTU 10:00:C4:F5:7C:38:BA:61 (Part Number: T5517AAE)</li> </ul>	1
2.	Type	<ul style="list-style-type: none"> <li>HPE 3Y Proactive Care 24x7 Service (Part Number: H1K92A3)</li> </ul>	Each

**B.53.2 Brocade 8\_16Gb FC Switch 12-pt Upg E-LTU  
10:00:C4:F5:7C:38:C5:61**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	<ul style="list-style-type: none"> <li>Brocade 8_16Gb FC Switch 12-pt Upg E-LTU 10:00:C4:F5:7C:38:C5:61 (Part Number: T5517AAE)</li> </ul>	1
2.	Type	<ul style="list-style-type: none"> <li>HPE 3Y Proactive Care 24x7 Service (Part Number: H1K92A3)</li> </ul>	1

**B.53.3 Brocade 8\_16Gb FC Switch 12-pt Upg E-LTU  
10:00:C4:F5:7C:38:CD:28**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	<ul style="list-style-type: none"> <li>Brocade 8_16Gb FC Switch 12-pt Upg E-LTU 10:00:C4:F5:7C:38:CD:28 (Part Number: T5517AAE)</li> </ul>	1
2.	Type	<ul style="list-style-type: none"> <li>HPE 3Y Proactive Care 24x7 Service (Part Number: H1K92A3)</li> </ul>	1

**B.53.4 Brocade 8\_16Gb FC Switch 12-pt Upg E-LTU  
10:00:C4:F5:7C:38:CC:68**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	<ul style="list-style-type: none"> <li>Brocade 8_16Gb FC Switch 12-pt Upg E-LTU 10:00:C4:F5:7C:38:CC:68 (Part Number: T5517AAE)</li> </ul>	1
2.	Type	<ul style="list-style-type: none"> <li>HPE 3Y Proactive Care 24x7 Service (Part Number: H1K92A3)</li> </ul>	1

**B.54 Scalar i3 Library 3U Cont Module Mod 25 lic slots no tape drives**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	LSC33-BSC0-001A	Scalar i3 Library 3U Cont Module Mod 25 lic slots no tape drives	1
2.	Type	SC33-ATDX-L8JA	Quantum Scalar i3 IBM LTO- 8 Tape Drive Module Half Height 8GB Native Fibre Channel	1
3.	Type	LSC33-APWR-001A	Quantum Scalar i3 Power Supply, 80 Plus Certified Energy Efficient	1
4.	Type	SSC33-RSC0-CB11	Quantum Scalar i3 Library 3U Control Module 25 licensed slots no tape drives Support Plan Bronze	1
5.	Type	SSC33-RTDX-CB11	Quantum Scalar i3 Library Tape Drive Module Half Height Bronze Support Plan (5x9xNBD) CRU	1

**B.55 HPE MSL2024 0-Drive Tape Library**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
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1.	Type	AK379A	HPE MSL2024 0-Drive Tape Library	1
2.	Type	AG119A	HPE MSL2024 Ultrium Left Mag Kit	1
3.	Type	AG120A	HPE MSL Ultrium Right Magazine Kit	1
4.	Type	7P36A	HPE MSL LTO-7 FC Drive Upgrade Kit	2
5.	Type	TC406AAE	HP StoreEver MSL TapeAssure Advanced E-LTU	1

**B.56 HPE 480GB SATA RI LFF SCC DS SSD**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	09687-B21	HPE 480GB SATA RI LFF SCC DS SSD	1
2.	Type	832514-B21	HPE 1TB SAS 7.2K SFF SC DS HDD	5

**B.57 Samsung 860 EVO, 250GB SSD**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	MZ-76E250B/EU	Samsung 860 EVO, 250GB SSD	1

**B.58 One 1.2 TB 10000 rpm 2.5-inch SAS-3 HDD without encryption with marlin bracket Prod Cat: V**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	7118670	One 1.2 TB 10000 rpm 2.5-inch SAS-3 HDD without encryption with marlin bracket Prod Cat: V	1
2.	Type	B58121	Oracle Premier Support for Systems	1
3.	Type	B58122	Oracle Customer Data and Device Retention	1
4.	Type	B59411	Hardware Freight Fee	1

**B.59 Seagate Iron Wolf Pro ST6000NE000 6 TB Hard Drive - 3.5" Internal - SATA (SATA/600)**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	ST6000NE000	Seagate IronWolf Pro ST6000NE000 6 TB Hard Drive - 3.5" Internal - SATA (SATA/600)	1
2.	Type	ST6000NE000	Seagate Seagate IronWolf Pro ST10000NE0008 10 TB Hard Drive - 3.5 "Internal -	1



		SATA (SATA / 600) - 72	
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**B.60 Synology DiskStation DS920 + 4xTotal Bays NAS Storage System Intel Celeron Quad-core (4 Core)**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	DS918+	Synology DiskStation DS920 + 4xTotal Bays NAS Storage System Intel Celeron Quad-core (4 Core)	1
2.	Type	WDBNFA0160KBK-EESN	WD My Cloud PR4100 4 x Total Bays NAS Storage	1
			System -Intel Pentium Quad-core (4 Core) 1.60 GHz	
3.	Type	RN426D2-100NES	Netgear ReadyNAS RN426 6 x Total Bays SAN/NAS Storage System - Intel Atom Quad-core (4 Core) - 4 GB	1

**B.61 ECLYPT freedom 600 USB 3.0 2TB**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	FET-IL6-200050UM	ECLYPT freedom 600 USB 3.0 2TB	5
2.	Type	FET-IL6-100050UM	ECLYPT freedom 600 USB 3.0 1TB FET-IL6-100050UM	5
3.	Type	IS-DAP2-256-4000- C-G	iStorage diskAshur PRO 2® External hard disk (2.5 inch) 4 TB Graphite USB 3.1	1
4.	Type	FET-IL6-025635SS	SSD ECLYPT Core 600 256GB 2.5" nom. x 7 mm Solid State	1
5.	Type	FET-IL6-051235SS	SSD ECLYPT Core 600 512GB 2.5" nom. x 7mm Solid State	2
6.	Type	FET-IL6-100035SS	IL6-100035SS SSD ECLYPT Core 600 1TB(1024GB) 2.5" nom. x 7mm Solid State	2
7.	Type	EKS-02USBH	Keystone USB Dual Authentication Token HDD For Ecllypt 600 and 200	15
8.	Type	FSECCKU ECLYPT	Universal Key Management Kit	15
9.	Type	LFXS000186	CESG Tamp Evident Label	30
10.	Type	Warranty	Premium Warranty 3 years (for 2.5" SSD)	15

11.	Type	Warranty	Premium Warranty 5 years (for 2.5" SSD)	15
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**B.62 DELL UltraSharp U3818DW computer monitor 96.5 cm (38 ") 3840 x 1600 pixels Ultra-Wide Quad HD + LCD**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	DELL-U3818DW	DELL UltraSharp U3818DW computer monitor 96.5 cm (38") 3840 x 1600 pixels Ultra-Wide Quad HD + LCD	4
2.	Type	DELL-U4919DW	DELL U4919DW computer monitor 124.5 cm (49 ") 5120 x 1440 Pixels UltraWide Dual Quad HD LCD Curved B	1
3.	Type	G55-MDDE32LPDF	Matrox G55-MDDE32LPDF videokaart GDDR	1

**B.63 Allied Telesis AT-MC101XL network media converter 100Mbit / s**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	AT-MC101XL-60	Allied Telesis AT-MC101XL network media converter 100 Mbit/S	10
2.	Type	LHGC-RACK	Media Converter Chassis 14- slot 2U- Chassis, 14 Slots, Dual AC Power Supply	4
3.	Type	LGC210A	Media Converter 10/100/1000M Copper to 1000M Fibre, Pure Networking Series - (1) 10/100/1000 Mbps	10
4.	Type	MS416001M	Modular Enterprise Chassis 3 HU 14 Slots	2
5.	Type	MS416004M	power supply module 100 230 VAC 90 watts manageable	6
6.	Type	MS416195M	Gigabit Ethernet 3-port Converter Module 1000Base- T/X	5
7.	Type	MS416100	Blanking plate unused ports	10
8.	Type	MS416006M	3 Slot Chassis Enterprise 19 " MS416006	55
9.	Type	MS416453MR	MSP800 Optical Crossbar+Wide Range Retimer	5

**B.64 Data Cables – length as required**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	1171703	Fiber optic cable - SC - ST -OM4	1
2.	Type	1216392	Network cable CAT6A -S/FTP - Grey	1
3.	Type	1170753	Fiber optic cable - LC to LC -OM4	1
4.	Type	1156670	Hook and Loop Cable Wraps,20 cm, 12 pieces	1

**B.65 HPE LTO-8 30TB RW Non Cust Lbl 20 Crtg**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	Q2078AN	HPE LTO-8 30TB RW Non Cust Lbl 20 Crtg	5
2.	Type	Q2014A	HPE LTO-7 Ultrium RW Bar Code Label Pack	10
3.	Type	C7977AH	HPE LTO-7 Ultrium 15TB Eco Case Data Cartridge 20 Pack	5
4.	Type	C7978A	HP Ultrium Universal Cleaning Cartridge	10

**B.66 SATA QuickPort Intern Single Bay**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	RDU33	SATA QuickPort Intern Single Bay	2
2.	Type	RDU59	Sharkoon SATA Quickport USB 3.1 Type C docking station	5
3.	Type	BLANCCO Toolkit	Blancco Drive Eraser	1
4.	Type	FORENSIC-MOAB	Forensic Computers Mobile Acquisition Bundle	1
5.	Type	KW-2501	Raspberry Pi 4 Model B -4GB	1
6.	Type	RPI-DISPLAY	Raspberry Pi 7" 800x480 DSI Touchscreen Display	1
7.	Type	KW-2216	Power over Ethernet (PoE) HAT	1
8.	Type	KW-2508	Official Raspberry Pi 4 Case - Red/White	1
9.	Type	KW-2506	Raspberry Pi 4 USB-C Power Supply - White - EU	1
10.	Type	MB-MC256GA/EU	Samsung EVO+ 256 GB Class 10/UHS-I (U3) microSDXC - 100 MB/s Read - 90 MB/s Write	1
11.	Type	M8200-60-KIT	IntelliTone Pro 200 LAN Toner en Probe KIT	1
12.	Type	MT-8202-05	MT-8202-05 INTELLITONE TAS	1
13.	Type	NFC-KIT-CASE-E	Fiber Optic Cleaning Kit: Case, Cube, Pen, 1.25 + 2.5 Swabs, 10	1

**B.67 RESERVED**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>

**B.68 HP Z2 Mini G4 Performance WKS**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	3AQ05AV#4	HP Z2 Mini G4 Performance WKS	1

			-	
2.	Type	3AQ05AV#4	NVIDIA Quadro P1000 4GB MXM GFX	1
3.	Type	3AQ05AV#4	Intel Core i7 8700 6C 65W CPU	1
4.	Type	3AQ05AV#4	16GB (1x16GB) DDR4 2666 SODIMM NECC Memory	1
5.	Type	3AQ05AV#4	Z Turbo Drive 256GB 2280 TLC Solid State Drive	1
6.	Type	3AQ05AV#4	Windows 10 Pro 64 UK	1
7.	Type	3AQ05AV#4	USB Business Slim Wired Keyboard US International (ABB)	1
8.	Type	3AQ05AV#4	HP Optical Wired Mouse USB	1
9.	Type	3AQ05AV#4	HP Remote Graphics Software (RGS) for Z	1
10.	Type	3AQ05AV#4	3/3/3 (material/labor/onsite) Mini Warranty EURO	1
11.	Type	3AQ05AV#4	230 Watt External Power Supply	1
12.	Type	3AQ05AV#4	HP Z2 Mini G4 Perf Country Kit Europe (ABB)	1

**B.69 Z2 Mini Arm/Wall VESA Mount Solution**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	Y7B61AA	Z2 Mini Arm/Wall VESA Mount Solution	1

**B.70 NETWORKING HARDWARE B&B SmartWorx, Inc. / IMC-370-SFP-PS**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	BB-856-10747	NETWORKING HARDWARE B&B SmartWorx, Inc. / IMC- 370-SFP-PS	1

**B.71 FIBER OPTIC TXRX SFP LC B&B SmartWorx, Inc. / SFPFMM850-2K**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	BB-808-38101	FIBER OPTIC TXRX SFP LC B&B SmartWorx, Inc. / SFPFMM850-2K	1

**B.72 HP B300 PC Mounting Bracket**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	2DW53AA	HP B300 PC Mounting Bracket	1

**B.73 Thomas Krenn RI1102H SERVER V3.2**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	RI1102H#01	Thomas Krenn RI1102H SERVER V3.2	1

**B.74 Intel I350-F2 Gigabit Ethernet Card - PCI Express x4 - 2 Port(s) - Low-profile, Full-height - Retail**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	I350F2BLK	Intel I350-F2 Gigabit Ethernet Card - PCI Express x4 - 2 Port (s) - Low-profile, Full-height - Retail	1

**B.75 HP Z4 G4 WKS**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	1JP11AV#1	HP Z4 G4 WKS Single unit (TWR) Packaging HP Z4 G4 90 465W Chassis Windows 10 Pro 64 Workstations EURO Operating System Load to M.2 Intel Xeon W-2123 3.6 2666MHz 8.25 4C CPU 16GB (1x16GB) DDR4 2666 DIMM ECC Registered Memory NVIDIA Quadro P1000 4GB (4)mDP GFX HP Z Turbo Drive M.2 256GB TLC SSD 1TB 7200RPM SATA 3.5in No Included Keyboard No Included Mouse No Included ODD Base FIO 4xUSB3 TypeA HP i350-T2 PCIe Dual Port Gigabit NIC HP Remote Graphics Software (RGS) for Z 3/3/3 (material/labor/onsite) Warranty EURO No Adapters Needed HP Z4 G4 Country Kit EURO HP Z4 Std CPU Cooling Solution	1

**B.76 Giga-MiniMc SFP with LFPT & Giga-MiniMc TX/SX & TX/LX**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	IMC-370-SFP-PS	Giga-MiniMc SFP with LFPT & Giga-MiniMc TX/SX &TX/LX	1

**B.77 FIBER OPTIC TXRX SFP LC B&B SmartWorx, Inc. / SFPFMM850**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	BB-808-38101	FIBER OPTIC TXRX SFP LC B&B SmartWorx, Inc. / SFPFMM850-2K	1

**B.78 Sentinel hardware network key 942-10001-005**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	942-10001-005	Sentinel hardware network key 942-10001-005	1

**B.79 Power Cord Jumper, C13-C14 Connectors, 2 Meter Length**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type		Power Cord Jumper, C13- C14 Connectors, 2 Meter Length	1

**B.80 Cabinet Jumper Power Cord, 250 VAC 16A, C20-C19 Connectors**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type		Cabinet Jumper Power Cord, 250 VAC 16A, C20- C19 Connectors	1

**B.81 NW S6 Hybrid Appl 8TB 7.2K NLSAS 3.5 in Configuration**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.		NW-S6-HYB-HDD-8TB	NW S6 Hybrid Appl 8TB 7.2K NLSAS 3.5 in	1
2.		NW-S6HYB-SSD-1.6TB	NW S6 Hybrid Appl 1.6TB SSD SAS 2.5 in	1
3.		NW-S6-HYB-HDD-2TB	NW S6 Hybrid Appl 2TB 7.2K NLSAS 3.5 in	1
4.		NW-DP-10GB-COP	NW S6 DP 10GB Intel Copper Adptr Hybrid	6
5.		NW-S6E-HYBRID-NL	NW S6 SED Hybrid TP Appl- No SW Lic	6
6.		SA-NETMON-P-T2	NW T2, 11-50TB/day NetM PerTB	5

			Perp Lic	
7.		SA-NETMON-P-T2-B1	NW T2, Per TB NetM BscMnt 1Mo (Duration 7 months)	5

### B.82 Gigamon Bypass Combo Module Configuration

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.		BPS-HC1-D25A24	Bypass Combo Module, GigaVUE-HC1, 2 SX/SR 50/125 BPS pairs, 4 10G SFP+ cages	1
2.		TAP-HC1-G10040	TAP and Bypass module, GigaVUE-HC1, 10/100/1000M Copper, 4 TAPs or Bypass pairs	1
3.		PRT-HC1-X12	Port Module, GigaVUE-HC1, 12x10G SFP+ cages	1
4.		GVS-HC101	GigaVUE-HC1 chassis, 12 1G/10G cages, 4 10/100/1000M Copper, fan tray, 2 power supplies, AC power	1
5.		PCD-00003	Power Cord, EU plug	1
6.		SFP-501	1 Gig SFP, Copper, UTP with RJ45 interface	1
7.		SFP-502	1 Gig SFP, Multimode 850	1
8.		SFP-503	1 Gig SFP, Singlemode 1310	1
9.		GSS-FYSELT-PSS	Initial Gigamon Pass-through Support Type with ELITE Support Level (24x7/AHR), bought with product or within 1 year of original purchase of product*	1

### B.83 Netscout Rack Mount HD Fiber Taps

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.		321-2068	Rack Mount, HD Fiber Taps, 16-24 slot, 1U	1
2.		340-1084	HD Fiber Tap, 1G/10G, 50um OM4, MM, 50/50*	1

### B.84 SRX300 Configuration

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.		SRX300	SRX300 (Hardware Only require SRX300-JSB or SRX300-JSE to complete the System) with 8GE (w 2x SFP) 4G RAM 8G Flash. Includes external power supply and cable. RMK not included	1
2.		SRX300-RMK0	SRX300 rack mount kit with adaptor tray	1
3.			Small Form Factor Pluggable	

		EX-SFP-1GE-T	10/100/1000 Copper Transceiver Module	2
4.		SVC-ND-SRX300HW	Juniper Care Next Day Support for SRX300 (SOFTWARE SUPPORT IS NOT INCLUDED must be purchased separately) 12 months	1

**B.85 SERVSWITCH CX QUAD IP 16 PORT KVM W/4 IP SESSION**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.		KV4161A	SERVSWITCH CX QUAD IP 16 PORT KVM W/4 IP SESSION	1
2.		RMK2004	RACK MOUNT KIT 1U FOR SINGLE UNIT	1
3.		KV1401A	VGA, USB HDI SERVER ACCESS MODULE FOR CX SERIES	16
4.		KV1408A	DISPLAY PORT, USB, AUDIO SERVER ACCESS MODULE FOR CX SERIES	16

**B.86 RESERVED**

#	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>

**B.87 SFP 100Base-FX - Allied Telesis AT-SPFX/2 LC**

#	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	SFP	AT-SPFX/2 AT-SPFX-2\100BaseFX\2km\1310nm\Multi-Mode Fibre	1

**B.88 RESERVED**

#	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>

**B.89 ACT Patch Cords**

#	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	FB3000	PATCHCORD C6A S/FTP 0,5M GREY	1
2	FB3001	PATCHCORD C6A S/FTP 1M GREY	1
3	FB3051	PATCHCORD C6A S/FTP 1,5M GREY	1
4	FB3010	PATCHCORD C6A S/FTP 10M GREY	1



**B.90 HPE Cables**

#	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	QK732A	HPE Premier Flex LC/LC OM4 2f 1m Cbl	1
2	QK733A	HPE Premier Flex LC/LC OM4 2f 2m Cbl	1
3	QK735A	HPE Premier Flex LC/LC OM4 2f 15m Cbl	1

**B.91 Mellanox 40GB/s Optical Module**

#	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	MC2210411- SR4	Mellanox® optical module, 40Gb/s, QSFP, MPO, 850nm, up to 100m	1

**B.92 Network Taps; Datakom CTP-1000**

#	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	CTP-1000	10/100/1000BASE-TX Link Aggregation Tap	1

**B.93 Datakom Rack Mount Chassis**

#	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	RMC-3	3 Tap 1u rack mount chassis	1

**B.94 Dell Networking S6010-ON, 1U, 32x 40GbE QSFP+, 2x AC PSUs, IO to PSU Airflow, OS9**

#	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	210-AGMN	Dell Networking S6010-ON, 1U, 32x 40GbE QSFP+, 2x AC PSUs, IO to PSU Airflow, OS9	1
2	407-BBYR	Dell Networking, Transceiver, 40GbE QSFP+ SR4 Open Networking, 850nm Wavelength, MTP, MMF	10
3	450-ACSU	Power Cord, PDU (Rack)	2
4	528-BBSX	OS9 installed on S6010-ON, with entitlement to OS10 Enterprise	1
5	634-BHCU	Software, Rights to use L3, S6010-ON	1
6	631-AAXQ	S6010-ON User Documentation EMEA	1
7	709-13985	Base Warranty	1
8	709-13986	1Yr Return to Depot - Minimum Warranty	1
9	709-13987	90 Day SW Bug Fixes Support Media Replacement	1
10	710-96591	INFO 1Yr ProSupport and 4hr Mission Critical	1
11	710-96593	3Yr ProSupport and 4hr Mission Critical	1

**B.95 Dell Networking S4048-ON, 48x 10GbE SFP+ and 6x 40GbE QSFP+ ports, IO to PSU air, 1x AC PSUs, DNOS9**

#	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	210-ADUW	Dell Networking S4048-ON, 48x 10GbE SFP+ and 6x 40GbE QSFP+ ports, IO to PSU air, 1x AC PSUs, DNOS9	1
2	407-BBEE	Dell Networking, Transceiver, SFP+, 10GbE, LR, 1310nm Wavelength, 10km Reach	1
3	450-ACSU	Power Cord, PDU (Rack)	1
4	450-AAQB	Power Supply, AC, 460w, IO to PSU airflow, S4048-ON	1
5	528-BBSZ	OS9 installed on S4048-ON, with entitlement to OS10 Enterprise	1
6	709-13025	Base Warranty	1
7	709-17072	1Yr Return to Depot - Minimum Warranty	1
8	709-17073	90 Day SW Bug Fixes Support Media Replacement	1
9	865-86141	3Yr ProSupport and 4Hr Mission Critical	1

**B.96 Dell Networking Cable, QSFP+, 40GbE Active Optical (no optics required), 3 Meters, Customer Kit**

#	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	470-ACOR	Dell Networking Cable, QSFP+, 40GbE Active Optical (no optics required), 3 Meters, Customer Kit	1

**B.97 Dell Networking S4048-ON, 48x 10GbE SFP+ and 6x 40GbE QSFP+ ports, IO to PSU air, 1x AC PSUs, DNOS9**

#	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	210-ADUW	Dell Networking S4048-ON, 48x 10GbE SFP+ and 6x 40GbE QSFP+ ports, IO to PSU air, 1x AC PSUs, DNOS9	1
2	450-ACSU	Power Cord, PDU (Rack)	1
3	450-AAQB	Power Supply, AC, 460w, IO to PSU airflow, S4048-ON	1
4	470-AAIB	Dell Networking, Cable, QSFP+ to QSFP+, 40GbE Passive Copper Direct Attach Cable, 0.5 m	1
5	528-BBSZ	OS9 installed on S4048-ON, with entitlement to OS10 Enterprise	1
6	709-13025	Base Warranty	1
7	709-17072	1Yr Return to Depot - Minimum Warranty	1
8	709-17073	90 Day SW Bug Fixes Support Media Replacement	1
9	865-86141	3Yr ProSupport and 4Hr Mission Critical	1

**B.98 Dell Networking S3124F, L3, 24x 1GbE SFP, 2xCombo, 2x 10GbE SFP+ fixed ports, Stacking, IO to PSU air, 1x AC PSU**

#	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	210-AIMS	Dell Networking S3124F, L3, 24x 1GbE SFP, 2xCombo, 2x 10GbE SFP+ fixed ports, Stacking, IO to	1

		PSU air, 1x AC PSU	
2	407-BBDB	Dell Networking, Transceiver, SFP, 1000BASE-SX, 850nm Wavelength, 550m Reach	3
3	407-BBEF	Dell Networking, Transceiver, SFP+, 10GbE, SR, 850nm Wavelength, 300m Reach	5
4	450-AART	Rack Power Cord 2M, C13/C14, 12A	1
5	470-AAPT	Stacking Cable, for Dell Networking N2000/N3000/S3100 series switches (no cross-series stack), 1m	1
6	709-14075	S3124P,S3124F,S3124 Base Warranty	1
7	709-14076	S3124P,S3124F,S3124 Limited Lifetime Hardware Warranty Minimum Warranty	1
8	709-14077	S3124P,S3124F,S3124 90 Days Software Support (Bug Fixes), Software Media Replacement	1
9	865-11154	S3124P,S3124F,S3124 3Yr ProSupport and 4hr Mission Critical	1

**B.99 Dell Networking S3148P, L3, PoE+, 48x 1GbE, 2x Combo, 2x 10GbE SFP+ fixed ports, Stacking, IO to PSU air, 1x 1100w AC PS**

#	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	210-AIMP	Dell Networking S3148P, L3, PoE+, 48x 1GbE, 2x Combo, 2x 10GbE SFP+ fixed ports, Stacking, IO to PSU air, 1x 1100w AC PS	1
2	450-ADXF	European 250V C15 Power Cord for N20xxP/N30xxP	1
3	450-AFHX	Power Supply, 1100w, S3148P, Required for more than 900 watts of POE+, or for redundancy	1
4	470-AAPT	Stacking Cable, for Dell Networking N2000/N3000/S3100 series switches (no cross-series stack), 1m	1
5	709-14107	S3148,S3148P Base Warranty	1
6	709-14108	S3148P Limited Lifetime Hardware Warranty - Minimum Warranty	1
7	709-14109	S3148P 90 Days Software Support (Bug Fixes), Software Media Replacement	1
8	865-11486	S3148,S3148P 3Yr ProSupport and 4hr Mission Critical	1

**B.100 Palo Alto 850**

#	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	PAN-PA-850	Palo Alto Networks PA-850	1
2	PAN-PWR-CORD-EU	Power cord for Continental Europe with IEC-60320 C13 and CEE 7/7 SCHUKO cord	1
3	PAN-PA-1RU-RACK4	Palo Alto Networks PA-820 and PA-850 4 post rack mount kit	1
4	PAN-SVC-BKLN-850	Partner enabled premium support year 1, PA-850	1

**B.101 Palo Alto Networks PA-5220 with redundant AC power supplies**

#	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type PAN-PA-5220-AC	Palo Alto Networks PA-5220 with redundant AC power supplies	1
2.	Type PAN-PWR-CORD-EU	Power cord for Continental Europe with IEC-60320 C13 and CEE 7/7 SCHUKO cord ends, 10A, 250V max, 6ft	1
3.	Type PAN-PA-5220-TP-HA2	Threat prevention subscription for device in an HA pair year 1, PA-5220	1
4.	Type PAN-PA-5220-URL4- HA2	PANDB URL filtering subscription for device in an HA pair year 1, PA-5220	1
5.	Type PAN-SVC-BKLN-5220	Partner enabled premium support year 1, PA-5220	1

**NATO Communications and Information Agency**



**IFB-CO-115125-e-FIT**

- Provision of -

**COTS IT  
HARDWARE AND ASSOCIATED SUPPORT**

**BOOK II - PART IV**

**STATEMENT OF WORK (SOW)**

**Schedule C – Server Equipment  
AMENDMENT 2**

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## SCHEDULE C – SERVER EQUIPMENT

- 1.1. The equipment in this schedule includes:
  - 1.1.1. Rack Servers
  - 1.1.2. Blade Servers & Chassis
  - 1.1.3. Racks & Technical Room Equipment
  - 1.1.4. Uninterruptable Power Supplies (UPS)
- 1.2. The equipment in this category shall be sourced from mainstream brand manufacturers that have support and warranty channels that cover the geographical scope of this Contract and include, but are not limited to: Hewlett Packard, Dell, Lenovo, etc, in order to replace existing branded equipment.
- 1.3. **Alternatives due to discontinuation or non-availability or obsolescence**
  - 1.3.1. The Purchaser acknowledges the possibility that due to the fast moving nature of changes in technology, that at the time of contract or task order award, some of the Purchaser's requirements may be discontinued or no longer available or obsolete, thereby in need of a replacement or substitution.
  - 1.3.2. With this acknowledgement, the Purchaser advises that for each item which falls under this category, the Contractor is allowed to propose an alternative (i.e. a replacement or substitution) if due to discontinuation or obsolescence or the Purchaser's original requirement is neither available nor is best suitable.
  - 1.3.3. Any alternative proposed shall be: (a) same as or similar to the specification and configuration as the Agency's baseline requirement and (b) technically compliant.
- 1.4. The configurations and quantities of the items within the equipment listed below may change per Task Order.



**C.1 Rack Mount Server – HP DL180 G9**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Form Factor	2U Rack Mountable Chassis	1
2.	Processor	Intel Xeon E5-2630v3, 2.4 GHz 8 Core	2
3.	RAM	32 GB DDR4	1
4.	Controller	RAID controller HP Smart Array P440 - 2GB Battery Backed Cache	1
5.	SSD	480GB 6G SATA 2.5in SSD	2
6.	Rack equipment	2U Sliding Rail Kit	1
7.	Power Supply	900W Ht Plg Pwr Supply	2
8.	NIC	Ethernet 1Gb 2-Port Adapter	2
9.	Fan	Second Fan	2
10.	Management Tools	SNMP v3 Management, Fault Management, Configuration Management, Asset Management, Performance Management; Remote Management, Storage Management Software tools & interfaces. - HP Insight Control License	1
11.	Warranty	3 Years On-site, Next Business Day - HPE 3 Years Foundation Care Next Business Day Service	1

**C.1.1 Option for HPE DL server: HP SN1000Q 16Gb**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Host Bus Adapter	HP SN1000Q 16Gb, PCIe3.0 to FC multi-mode (duplex) optical interface with auto speed negotiation 4/8/16Gbs	2

**C.1.2 Option for HPE DL server: 2TB 6G SAS 7.2K 2.5in HDD**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	HDD	2TB 6G SAS 7.2K 2.5in HDD	1

**C.2 Rack Mount Server (HP) - HPE DL380 G9**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Form Factor	HP DL380 Gen9 2U 24SFF CTO Server	1
2.	Processor	Intel Xeon E5-2630v3 2.4GHz 8 Core Xeon HP DL380 Gen9 E5-2630v3 FIO Kit	2
3.	RAM	HP 4GB PC4-2133P-R Kit	8
4.	Media container	HP DL380 Gen9 2SFF Bay Kit	1
5.	SAS Controller	HP Smart Array P440ar/2G FIO Controller	1
6.	SAS Expander	HP 12Gb DL380 Gen9 SAS Expander Card	1

<sup>1</sup> Quantity of sub-elements needed for full configuration. This applies throughout the entire Schedule.

7.	HDD	HP 2TB 6G SAS 7.2K 2.5in SC MDL HDD	4
8.	SSD	HP 480GB 6G SATA VE 2.5in SC EV SSD	2
9.	Rack equipment	HP 2U SFF Easy Install Rail Kit	1
10.	Power Supply	HP 800W FS Plat Ht Plg Pwr Supply Kit	2
11.	NIC	2 x HP Ethernet 1Gb 2-Port 332T Adapter	2
12.	Fan	Second Fan	2
13.	Management Tools	SNMP v3 Management, Fault Management, Configuration Management, Asset Management, Performance Management; Remote Management, Storage Management Software tools & interfaces. - HP Insight Control License	1
14.	Warranty	3 Years On-site, Next Business Day - HPE 3 Years Foundation CareNext Business Day Service	1

**C.2.1 Rack Mount Virtualization Server – HPE DL380 G9, 8TB HDD**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Form Factor	2 U Rack Mountable Chassis	1
2.	Processor	Intel Xeon E5-2697v3 2.6 GHz 14 Core processor	2
3.	RAM	256 GB DDR4	1
4.	Controller	RAID controller HP Smart Array P440ar - 2GB Battery Backed Cache	1
5.	HBA	HP SN1000Q 16Gb, PCIe3.0 to FC multi-mode (duplex) optical interface with auto speed negotiation 4/8/16Gbs.	2
6.	HDD	2TB 6G SAS 7.2K 2.5in SC MDL HDD	4
7.	SSD	480GB 6G SATA VE 2.5in SC EV SSD	2
8.	Rack equipment	2U SFF Easy Install Rail Kit	1
9.	Power Supply	800W Ht Plg Pwr Supply	2
10.	NIC	AT-2911SX/2LC, Allied Telesys PCI-Express Dual Port Adapter: 1000SX LC Connector	1
11.	Fan	Second Fan	2
12.	Management Tools	SNMP v3 Management, Fault Management, Configuration Management, Asset Management, Performance Management; Remote Management, Storage Management Software tools & interfaces. - HP Insight Control License	1
13.	Warranty	3 Years On-site, Next Business Day - HPE 3 Years Foundation CareNext Business Day Service	1

**C.2.2 Rack Mount Virtualization Server - HPE DL380 G9, 16TB HDD**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Form Factor	HP DL380 Gen9 2U 24SFF CTO Server	1
2.	Processor	Intel Xeon E5-2695v3 2.3 GHz 14 Core processor HP DL380 Gen9 E5-2695v3 FIO Kit	2

3.	RAM	HP 32GB 2Rx4 PC4-2133P-R Kit	8
4.	Media container	HP DL380 Gen9 2SFF Bay Kit	1
5.	SAS Controller	HP Smart Array P440ar/2G FIO Controller	1
6.	SAS Expander	HP 12Gb DL380 Gen9 SAS Expander Card	1
7.	HBA	HP 82Q 8Gb Dual Port PCI-e FC HBA	2
8.	HDD	HP 2TB 12G SAS 7.2K 2.5in SC MDL HDD	8
9.	SSD	HP 480GB 6G SATA 2.5in SSD	2
10.	Rack equipment	HP 2U SFF Easy Install Rail Kit	1
11.	Power Supply	HP 800W FS Plat Ht Plg Pwr Supply Kit	2
12.	NIC	HP Ethernet 1Gb 2-Port 332T Adapter	2
13.	Fan	Fan, Redundant Configuration	2
14.	Management Tools	SNMP v3 Management, Fault Management, Configuration Management, Asset Management, Performance Management; Remote Management, Storage Management Software tools & interfaces. - HP Insight Control License	1
15.	Warranty	3 Years On-site, Next Business Day - HPE 3 Years Foundation CareNext Business Day Service	1

### C.3 Server Blade Enclosure - HPE BLc7000

#### C.3.1 Server Blade Enclosure - HPE BLc7000 (converged networking)

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Enclosure	HP BLc7000 CTO 3 IN LCD Plat Enclosure	1
2.	SAN Connector	HP BLc VC FlexFabric-20/40 F8 Module	2
3.	Connector modules	HP 8Gb Short Wave B-Series SFP+ 1 Pack	8
4.	Connector modules	HP BLc 10G SFP+ SR Transceiver	8
5.	Power Supply	HP 2650W Plat Ht Plg FIO Pwr Sply Kit	6
6.	Power Management	HP BLc 1PH Intelligent Power Mod FIO Opt	1
7.	Fan	HP BLc Encl Single Fan Option	1
8.	Management Tools	HP BLc7000 DDR2 Encl Mgmt Option, SNMP v3 Management, Fault Management, Configuration Management, Asset Management, Performance Management; Remote Management, Storage Management Software tools & interfaces. – HP OneView Enclosure License	1
9.	Warranty	3 Years On-site, Next Business Day - HPE 3 Years Foundation Care, Next Business Day Service	1

#### C.3.2 Server Blade Enclosure - HPE BLc7000 (10GE and 16GFC)

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	Chassis	HP BLc7000 CTO 3 IN LCD Plat Enclosure P/N 681844-B21	1
2	SAN Switch	Brocade 16Gb/16c Embedded SAN Switch P/N C8S45A	2
3	SFP	HPE B-series 16Gb SFP+SW XCVR P/N QK724A	8

4	Patchcord	HPE Premier Flex LC/LC OM4 2f 5m Cbl P/N QK734A	8
5	License	HPE OV 3yr 24x7 Encl FIO Phys 16 Svr Lic P/N E5Y41A	1
6	Network Module	HP BLc VC Flex-10/10D Module Opt P/N 638526-B21	2
7	Service	Factory integrated P/N 638526-B21 0D1	2
8	SFP	HP BLc 10G SFP+ SR Transceiver P/N 455883-B21	8
9	Service	Factory integrated P/N 455883-B21 0D1	8
10	Power Supply	HPE 6X 2650W Plat Ht Plg FIO PS Kit P/N 733460-B21	1
11	Fans	HP BLc Encl Single Fan Option P/N 412140-B21	6
12	Service	Factory integrated P/N 412140-B21 0D1	6
13	Memory	HP BLc7000 DDR2 Encl Mgmt Option P/N 456204-B21	1
14	Service	Factory integrated P/N 456204-B21 0D1	1
15	Power Controller	HP BLc 1PH Intelligent Power Mod FIO Opt P/N 677595-B21	1
16	Warranty	HPE 3Y Foundation Care NBD Service P/N H7J32A3	1
17	Warranty	HPE c7000 Enclosure Support P/N H7J32A3 7FX	1
18	Warranty	Brocade 4/12 and 4/24 SAN Switch Supp P/N H7J32A3 85J	2
19	Warranty	HPE VC FlxFbrc Support P/N H7J32A3 TG8	2

**C.3.3 Server Blade Enclosure - HPE BLc7000 (Cisco 10GE and 16GFC w/o OV)**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
		<b>Server Blade Enclosure - HPE BLc7000 (Cisco 10GE and 16GFC w/o OV)</b>	
1	Chassis	HP BLc7000 CTO 3 IN LCD Plat Enclosure 681844-B21	1
2	SAN Switch	Brocade 16Gb/16c Embedded SAN Switch C8S45A	2
3	Service	Factory integrated C8S45A 0D1	2
4	License	HP OV 3yr 24x7 Encl FIO Phys 16 Svr Lic E5Y41A	1
5	Network Module	HP BLc Cisco B22HP Fabric Ext Module 641146-B21	2
6	Service	Factory integrated 641146-B21 0D1	2
7	Patchcord	HPE Premier Flex LC/LC OM4 2f 5m Cbl QK724A	8
8	Service	Factory integrated QK734A 0D1	8
9	SFP	HPE B-series 16Gb SFP+SW XCVR QK724A	8
10	Service	Factory integrated QK724A 0D1	8
11	Power Supply	HPE 6X 2650W Plat Ht Plg FIO PS Kit 733460-B21	1
12	Fans	HP BLc Encl Single Fan Option 412140-B21	6
13	Service	Factory integrated 456204-B21 0D1	6
14	Memory	HP BLc7000 DDR2 Encl Mgmt Option 456204-B21	1

15	Service	Factory integrated 456204-B21 0D1	1
16	Power Controller	HP BLc 1PH Intelligent Power Mod FIO Opt 677595-B21	1
17	Warranty	HPE 3Y Foundation Care 24x7 Service H7J34A3	1
18	Warranty	HPE c7000 Enclosure Support H7J34A3 7FX	1
19	Warranty	Brocade 4/12 and 4/24 SAN Switch Supp H7J34A3 85J	2
20	SFP	HP C-series 10GbE Short Range SFP+ XCVR AP783A	8

**C.3.4 Option for BLc7000: HPE 2650W Platinum Hot Plug Power Supply Kit**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Power Supply	HPE 2650W Platinum Hot Plug Power Supply Kit	

**C.3.5 Option for BLc7000: HPE BLc7000 Enclosure HP Single Active Cool Fan Option Kit**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Fan Kit	HPE BLc7000 Enclosure HP Single Active Cool Fan Option Kit	1

**C.3.6 Option for BLc7000: HPE Virtual Connect FlexFabric- 20/40 F8 Module for c-Class BladeSystem**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Network switch	HPE Virtual Connect FlexFabric-20/40 F8 Module for c- Class Blade System	1

**C.4 Standard Blade Server (HP) - HP BL460c Gen9**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Form Factor	HP BL460c Gen9 10Gb/20Gb FLB CTO Blade	1
2.	2.6 GHz 8 Core Processor	HP BL460c Gen9 E5-2640v3 FIO Kit	1
3.	2nd Processor	HP BL460c Gen9 E5-2640v3 Kit	1
4.	Memory	HP 32GB 4Rx4 PC4-2133P-L Kit	2
5.	NIC	HP FlexFabric 20Gb 2P 650FLB FIO Adptr	1
6.	NIC 2	HP 650M (700767-B21)	1
7.	HDD	2 x HP300GB 6G SAS 10K 2.5in SC ENT HDD	2
8.	Controller	HP Smart Array P244br/1G FIO Controller	1

9.	Management Tools	Integrated in c7000 Blade Enclosure	-
10.	Warranty	3 Years On-site, Next Business Day - HPE 3 Years Foundation Care Next Business Day Service	1

**C.4.1 Standard Blade Server (HP) - HP BL460c Gen9**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Host Bus Adapter	HPE LPe1605 16Gb FC HBA	8

**C.4.2 Standard Blade Server (HP) - HP BL460c Gen9**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	License	HPE Insight Control Encl Bdl 8 Track Lic	1

**C.4.3 Standard Blade Server (HP)**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	License	8x C6N28ABF HPE Insight Control E-LTU	1

**C.4.4 HCC Blade Server - HPE BL460c G9, 2x14c CPU, 512GB RAM, 2x200GB SSD, 16GFC**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Form Factor	HP BL460c Gen9 10Gb/20Gb FLB CTO Blade PN 727021-B21	1
2.	CPU	HP BL460c Gen9 E5-2697v3 FIO Kit PN 767049-L21	1
3.	CPU	HP BL460c Gen9 E5-2697v3 Kit PN 767049-B21	1
4.	Service	Factory integrated PN 767049-B21 0D1	1
5.	Memory	HP 64GB 4Rx4 PC4-2133P-L Kit 726724-B21	8
6.	Service	Factory integrated PN 726724-B21 0D1	8
7.	Disk	HPE 200GB SAS WI SFF SC SSD PN 779164-B21	2
8.	Service	Factory integrated PN 779164-B21 0D1	2
9.	NIC	HPE FlexFabric 20Gb 2P 650FLB FIO Adptr PN 700764-B21	1
10.	HBA	HP Smart Array P244br/1G FIO Controller PN 761871-B21	1
11.	NIC2	HPE FlexFabric 20Gb 2P 650M Adptr PN 700767-B21	1
12.	Service	Factory integrated PN 700767-B21 0D1	1
13.	FC Controller	HPE LPe1605 16Gb FC HBA PN 718203-B21	1
14.	Service	Factory integrated PN 718203-B21 0D1	1
15.	License	HPE iLO Adv BL incl 3yr TSU 1-Svr Lic PN BD502A	1
16.	Service	Factory integrated PN BD502A 0D1	1

17.	Service	HPE 3Y FC NBD BL4xxc Gen9 SVC PN U7BM9E	1
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**C.4.4.1 HCC Blade Server - HPE BL460c G9, 2x14c CPU, 512GB RAM, 16GFC, incl. 2x400GB SSD - P/N 779168-B21**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Form Factor	HP BL460c Gen9 10Gb/20Gb FLB CTO Blade PN 727021-B21	1
2.	CPU	HP BL460c Gen9 E5-2697v3 FIO Kit PN 767049-L21	1
3.	CPU	HP BL460c Gen9 E5-2697v3 Kit PN 767049-B21	1
4.	Service	Factory integrated PN 767049-B21 0D1	1
5.	Memory	HP 64GB 4Rx4 PC4-2133P-L Kit 726724-B21	8
6.	Service	Factory integrated PN 726724-B21 0D1	8
7.	Disk	HPE 400GB SAS WI SFF SC SSD P/N 779168-B21	2
8.	Service	Factory integrated P/N 779168-B21 0D1	2
9.	NIC	HPE FlexFabric 20Gb 2P 650FLB FIO Adptr PN 700764-B21	1
10.	HBA	HP Smart Array P244br/1G FIO Controller PN 761871-B21	1
11.	NIC2	HPE FlexFabric 20Gb 2P 650M Adptr PN 700767-B21	1
12.	Service	Factory integrated PN 700767-B21 0D1	1
13.	FC Controller	HPE LPe1605 16Gb FC HBA PN 718203-B21	1
14.	Service	Factory integrated PN 718203-B21 0D1	1
15.	License	HPE iLO Adv BL incl 3yr TSU 1-Svr Lic PN BD502A	1
16.	Service	Factory integrated PN BD502A 0D1	1
17.	Service	HPE 3Y FC NBD BL4xxc Gen9 SVC PN U7BM9E	1

**C.5 Virtualization Blade Server (HP) - HP BL460c Gen9 256GB RAM**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Form Factor	HP BL460c Gen9 10Gb/20Gb FLB CTO Blade	1
2.	2.3 GHz 14 Core Processor	HP BL460c Gen9 E5-2695v3 FIO Kit	1
3.	2nd Processor	HP BL460c Gen9 E5-2695v3 Kit	1
4.	Memory	HP 32GB 4Rx4 PC4-2133P-L Kit	8
5.	NIC	HP FlexFabric 20Gb 2P 650FLB FIO Adptr	1
6.	NIC 2	HP 650M (700767-B21)	1
7.	SAS Controller	HP Smart Array P741m/4G FIO Controller	1
8.	SSD	HP 64GB VE Solid State M.2 Kit	2
9.	Controller	HP Smart Array P244br/1G FIO Controller	1
10.	Warranty	3 Years On-site, Next Business Day - HPE 3 Years Foundation Care, Next Business Day Service	1

**C.5.1 Virtualization Blade Server - HPE BL460c Gen9 512GB RAM**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Form Factor	HP BL460c Gen9 10Gb/20Gb FLB CTO Blade	1
2.	2.3 GHz 14 Core Processor	HP BL460c Gen9 E5-2695v3 FIO Kit	1
3.	2nd Processor	HP BL460c Gen9 E5-2695v3 Kit	1
4.	Memory	HP 64GB 4Rx4 PC4-2133P-L Kit	8
5.	NIC	HP FlexFabric 20Gb 2P 650FLB FIO Adptr	1
6.	NIC 2	HP 650M (700767-B21)	1
7.	SAS Controller	HP Smart Array P741m/4G FIO Controller	1
8.	SSD	HP 64GB VE Solid State M.2 Kit	2
9.	Controller	HP Smart Array P244br/1G FIO Controller	1
10.	Warranty	3 Years On-site, Next Business Day - HPE 3 Years Foundation Care, Next Business Day Service	1

### C.5.1.1 Virtualization Blade Server - HPE BL460c Gen9 512GB RAM CPU v4 edition

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	813198-B21	HPE ProLiant BL460c Gen9 E5-v4 10Gb/20Gb FlexibleLOM Configure-to-order Blade Server	1
2.	819848-L21	HPE BL460c Gen9 Intel Xeon E5-2643v4 (3.4GHz/6-core/20MB/135W) FIO Processor Kit	1
3.	819848-B21	HPE BL460c Gen9 Intel Xeon E5-2643v4 (3.4GHz/6-core/20MB/135W) Processor Kit	1
4.	819848-B21 0D1	Factory Integrated	1
5.	805358-B21	HPE 64GB (1x64GB) Quad Rank x4 DDR4-2400 CAS-17-17-17 Load Reduced Memory Kit	8
6.	805358-B21 0D1	Factory Integrated	8
7.	875483-B21	HPE 240GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	2
8.	875483-B21 0D1	Factory Integrated	2
9.	700065-B21	HPE FlexFabric 20Gb 2-port 630FLB Adapter	1
10.	726793-B21	HPE Smart Array P246br/1GB FBWC 12Gb 4-ports Int SAS Controller	1
11.	700076-B21	HPE FlexFabric 20Gb 2-port 630M Adapter	1
12.	700076-B21 0D1	Factory integrated	1
13.	718203-B21	HPE LPe1605 16Gb FC HBA	1
14.	718203-B21 0D1	Factory integrated	1
15.	BD502A	HPE iLO Adv BL incl 3yr TSU 1-Svr Lic	1
16.	BD502A 0D1	Factory integrated	1
17.	U7BN0E	HPE 3 year Foundation Care Next business day with DMR BL4xxc Gen9 Service	1

### C.5.2 Virtualisation Blade Server - HPE BL460c



#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Server	HP BL460c Gen9 10Gb/20Gb FLB CTO Blade P/N 727021-B21	1
2.	CPU	HP BL460c Gen9 E5-2643v3 FIO Kit P/N 773124-L21	1
3.	CPU	HP BL460c Gen9 E5-2643v3 Kit P/N 773124-B21	1
4.	Service	Factory integrated P/N 773124-B21 OD1	1
5.	Memory	HP 64GB 4Rx4 PC4-2133P-L Kit P/N 726724-B21	8
6.	Service	Factory integrated P/N 726724-B21 OD1	8
7.	SSD	HP 200GB 12G SAS ME 2.5in EM SC H2 SSD P/N 779164-B21	2
8.	Service	Factory integrated P/N 779164-B21 OD1	2
9.	Network adapter	HPE FlexFabric 20Gb 2P 650FLB FIO Adptr P/N 700764-B21	1
10.	Storage controller	HP Smart Array P244br/1G FIO Controller P/N 761871-B21	1
11.	Network adapter	HPE FlexFabric 20Gb 2P 650M Adptr P/N	1
12.	Service	Factory integrated P/N 700767-B21 OD1	1
13.	SAN adapter	HPE LPe1605 16Gb FC HBA P/N 718203-B21	1
14.	Service	Factory integrated P/N 718203-B21 OD1	1
15.	Management card	HPE iLO Adv BL incl 3yr TSU 1-Svr Lic P/N BD502A	1
16.	Service	Factory integrated P/N BD502A OD1	1
17.	Warranty	HPE 3Y FC NBD BL4xxc Gen9 SVC P/N U7BM9E	1

**c.5.2.1 DB Host Blade Server - HPE BL 460c; incl. HPE 400GB SAS - P/N 779168-B21 \*\*\***

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Server	HP BL460c Gen9 10Gb/20Gb FLB CTO Blade P/N 727021-B21	1
2.	CPU	HP BL460c Gen9 E5-2643v3 FIO Kit P/N 773124-L21	1
3.	CPU	HP BL460c Gen9 E5-2643v3 Kit P/N 773124-B21	1
4.	Service	Factory integrated P/N 773124-B21 OD1	1
5.	Memory	HP 64GB 4Rx4 PC4-2133P-L Kit P/N 726724-B21	8
6.	Service	Factory integrated P/N 726724-B21 OD1	8
7.	SSD	HPE 400GB SAS WI SFF SC SSD P/N 779168-B21	2
8.	Service	Factory integrated P/N 779168-B21 OD1	2
9.	Network adapter	HPE FlexFabric 20Gb 2P 650FLB FIO Adptr P/N 700764-B21	1
10.	Storage controller	HP Smart Array P244br/1G FIO Controller P/N 761871-B21	1
11.	Network adapter	HPE FlexFabric 20Gb 2P 650M Adptr P/N	1

12.	Service	Factory integrated P/N 700767-B21 0D1	1
13.	SAN adapter	HPE LPe1605 16Gb FC HBA P/N 718203-B21	1
14.	Service	Factory integrated P/N 718203-B21 0D1	1
15.	Management card	HPE iLO Adv BL incl 3yr TSU 1-Svr Lic P/N BD502A	1
16.	Service	Factory integrated P/N BD502A 0D1	1
17.	Warranty	HPE 3Y FC NBD BL4xxc Gen9 SVC P/N U7BM9E	1

### C.5.3 Virtualization Blade Server - HPE BL460c Gen9

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Form Factor	727021-B21 HPE BL460c Gen9 10Gb/20Gb FLB CTO Blade	1
2.	CPU	727003-L21 HPE BL460c Gen9 E5-2695v3 FIO Kit	1
3.	CPU	727003-B21 HP BL460c Gen9 E5-2695v3 Kit	1
4.	Service	727003-B21 0D1 Factory integrated	1
5.	Memory	726724-B21 HP 64GB 4Rx4 PC4-2133P-L Kit	4
6.	Service	726724-B21 0D1 Factory integrated	4
7.	Flash	726116-B21 HPE 8GB microSD EM Flash Media Kit	1
8.	NIC	684214-B21 HPE Ethernet 10Gb 2P 560FLB FIO Adptr	1
9.	NIC2	665246-B21 HPE Ethernet 10Gb 2P 560M Adptr	1
10.	Service	665246-B21 0D1 Factory integrated	1
11.	HBA	718203-B21 HPE LPe1605 16Gb FC HBA	1
12.	Service	718203-B21 0D1 Factory integrated	1
13.	Warranty	U7BM9E HPE 3Y FC NBD BL4xxc Gen9 SVC	1

### C.6 Rack Mount Server for ICC - HPE DL380 G9

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Form Factor	HP DL380 Gen9 2U 24SFF CTO Server	1
2.	Processor	Intel Xeon E5-2620v4 CPU 10-core 2.1 GHz / 20 MB cache 85W	1
3.	RAM	32GB (2 x 16GB) HPE PC4-2400T Memory Kit	1
4.	Media container	HP DL380 Gen9 2SFF Bay Kit	1
5.	SAS Controller	HP Smart Array P440ar/2G FIO Controller	1

6.	SSD	HP 480GB 6G SATA VE 2.5in SC EV SSD	2
7.	Rack equipment	HP 2U SFF Easy Install Rail Kit	1
8.	Power Supply	HPE 500W Hot-plug redundant power supply	2
9.	NIC	4x 10/100/1000BaseT + 2x 1000BaseSX	2
10.	Fan	Second Fan	2
11.	Management Tools	SNMP v3 Management, Fault Management, Configuration Management, Asset Management, Performance Management; Remote Management, Storage Management Software tools & interfaces. - HP Insight Control License, HPE iLO Adv incl 3yr TSU E-LTU	1
12.	Software Suport	Oracle Solaris Premier Subscription for Non- Oracle Hardware (1 Socket) - 3 year	1
13.	Warranty	3 Years On-site, Next Business Day - HPE 3 Years Foundation CareNext Business Day Service	1

### C.7 Online Backup Server - HPE DL380 G9 (24TB + StoreOnce)

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Form Factor	HP DL380 Gen9 24SFF CTO Server (StoreOnce)	1
2.	Processor	HP DL380 Gen9 E5-2630v3 2.4GHz * Core Xeon	2
3.	RAM	HP 16GB 2Rx4 PC4-2133P-R Kit	8
4.	Media container	HP DL380 Gen9 2SFF Bay Kit	1
5.	HDD	HP 1TB 6G SAS 7.2K 2.5in SC MDL HDD	24
6.	SSD	HP 480GB 6G SATA VE 2.5in SC EV SSD	2
7.	Network Adapter	HP FlexFabric 10Gb 2P 534FLR-SFP+ Adptr	1
8.	SAS Controller	HP Smart Array P440ar/2G FIO Controller	1
9.	SAS Expander	HP 12Gb DL380 Gen9 SAS Expander Card	1
10.	Rack equipment	HP 2U SFF Easy Install Rail Kit	1
11.	HBA	HP 82Q 8Gb Dual Port PCI-e FC HBA	1
12.	Power Supply	HP 800W FS Plat Ht Plg Pwr Supply Kit	1
13.	Server Software	HP StoreOnce VSA 10TB 3-year E-LTU	1
14.	Warranty	3 Years On-site, Next Business Day - HPE 3 Years Foundation Care Next Business Day Service	1

#### C.7.1 Online Backup Server - HPE DL380 G9 (64TB)

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	Server	HP DL380 Gen9 12LFF CTO Server P/N 719061-B21	1
2	Language pack	Europe - Multilingual Localization P/N 719061-B21 B19	1
3	CPU	HPE DL380 Gen9 E5-2640v4 FIO Kit P/N 817937- L21	1
4	CPU	HPE DL380 Gen9 E5-2640v4 Kit P/N 817937-B21	1
5	Service	Factory integrated p/n 817937-B21 0D1	1
6	Memory	HPE 64GB 4Rx4 PC4-2400T-L Kit P/N 805358-B21	8
7	Service	Factory integrated P/N 805358-B21 0D1	8
8	Storage option	HP DL380 Gen9 2SFF Bay Kit	1
9	Service	Factory integrated	1
10	Disk	HP 200GB 12G SAS ME 2.5in EM SC H2 SSD P/N 779164-B21	2
11	Service	Factory integrated P/N 779164-B21	2
12	Hard drive	HPE 8TB 6G SATA 7.2K LFF 512e SC HDD P/N 861594-B21	8
13	Service	Factory integrated P/N 861594-B21 0D1	8
14	Network adapter	HP FlexFabric 10Gb 2P 533FLR-T Adptr P/N 700759-B21	1
15	Service	Factory integrated P/N 700759-B21 0D1	1
16	Storage controller	HP Smart Array P440ar/2G FIO Controller P/N 749974-B21	1
17	Storage controller	HP 12Gb DL380 Gen9 SAS Expander Card P/N 727250-B21	1
18	Service	Factory integrated P/N 727250-B21 0D1	1
19	SAS cable	HP DL380 Gen9 12LFF SAS Cable Kit P/N 785991- B21	1
20	Service	Factory integrated P/N 785991-B21 0D1	1
21	SAN Adapter	HPE SN1100E 16Gb 2P FC HBA P/N C8R39A	2
22	Service	Factory integrated P/N C8R39A 0D1	2
23	Mount	HP 2U LFF Easy Install Rail Kit P/N 733662-B21	1
24	Storage controller	Factory integrated P/N 733662-B21 0D1	1
25	Power Supply	HPE 800W FS Plat Ht Plg Pwr Supply Kit720479- B21	2
26	Storage controller	Factory integrated P/N 720479-B21 0D1	2
27	Management Adapter	HPE iLO Adv incl 3yr TSU 1-Svr Lic P/N BD505A	1
28	Storage controller	Factory integrated P/N 505A 0D1	1

29	Warranty	HPE 3Y FC NBD DL380 Gen9 SVC P/N U7AD9E	1
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**c.7.1.1 Online Backup Server - HPE DL380 G9 (64TB); incl. HPE 400GB SAS - P/N 779168-B21**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	Server	HP DL380 Gen9 12LFF CTO Server P/N 719061-B21	1
2	Language pack	Europe - Multilingual Localization P/N 719061-B21 B19	1
3	CPU	HPE DL380 Gen9 E5-2640v4 FIO Kit P/N 817937- L21	1
4	CPU	HPE DL380 Gen9 E5-2640v4 Kit P/N 817937-B21	1
5	Service	Factory integrated p/n 817937-B21 0D1	1
6	Memory	HPE 64GB 4Rx4 PC4-2400T-L Kit P/N 805358-B21	8
7	Service	Factory integrated P/N 805358-B21 0D1	8
8		HP DL380 Gen9 2SFF Bay Kit	1
9	Service	Factory integrated	1
10		HPE 400GB SAS WI SFF SC SSD P/N 779168-B21	2
11	Service	Factory integrated P/N 779168-B21 0D1	2
12	Hard drive	HPE 8TB 6G SATA 7.2K LFF 512e SC HDD P/N 861594-B21	8
13	Service	Factory integrated P/N 861594-B21 0D1	8
14	Network adapter	HP FlexFabric 10Gb 2P 533FLR-T Adptr P/N 700759-B21	1
15	Service	Factory integrated P/N 700759-B21 0D1	1
16	Storage controller	HP Smart Array P440ar/2G FIO Controller P/N 749974-B21	1
17	Storage controller	HP 12Gb DL380 Gen9 SAS Expander Card P/N 727250-B21	1
18	Service	Factory integrated P/N 727250-B21 0D1	1
19	SAS cable	HP DL380 Gen9 12LFF SAS Cable Kit P/N 785991- B21	1
20	Service	Factory integrated P/N 785991-B21 0D1	1
21	SAN Adapter	HPE SN1100E 16Gb 2P FC HBA P/N C8R39A	2
22	Service	Factory integrated P/N C8R39A 0D1	2
23	Mount	HP 2U LFF Easy Install Rail Kit P/N 733662-B21	1
24	Storage controller	Factory integrated P/N 733662-B21 0D1	1
25	Power Supply	HPE 800W FS Plat Ht Plg Pwr Supply Kit720479- B21	2
26	Storage controller	Factory integrated P/N 720479-B21 0D1	2
27	Management Adapter	HPE iLO Adv incl 3yr TSU 1-Svr Lic P/N BD505A	1
28	Storage controller	Factory integrated P/N 505A 0D1	1
29	Warranty	HPE 3Y FC NBD DL380 Gen9 SVC P/N U7AD9E	1

**C.8 Rack Mount Server for MCCIS - HPE Integrity rx2800 i4 Server**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
		HPE Integrity rx2800 i4 Server - x 1 with HPUX	
1.	Server	HP rx2800 i4 Rack-Optimized Server	1
2.	CPU	HP rx2800 i4 Itanium 9520 4c Proc Kit	2
3.	Mount	HP rx2800 i2 Racking Kit	1
4.	Expansion	HP rx2800 i2 PCIe 3-Slot Riser Board	1
5.	Power supply	HP rx2800 i4 Redundant Power Supply	1
6.	Expansion	HP rx2800 i4 6-Slot Mem Expansion Board	1
7.	RAM	HP rx2800 16gb-2x8GB PC3L-12800R-11 Kit	2
8.	SSD	HP 200GB 12G SAS HE 2.5in EP SSD	2
9.	Configuration	HP Integrity Factory Level 1 RAID	1
10.	NIC	HP PCIe 2-port 1000Base-SX Card	1
11.	Software media	HP-UX 11i v3 BOE Media	1
12.	License	PSL BOE IPF 2Skt Low Core E-LTU	2
13.	Support service	HPE HP-UX 11i BOE Integ 2Skt/2Core Supp	2
14.	Support service	HPE rx2800 i4 server chassis Support	1
15.	Support service	HPE rx2800 i4 Processor Kit Support	2

**C.9 Software License - Veeam Backup & Replication Enterprise Plus**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	P-VBRPLS-VSP0000-00	Veeam Backup & Replication Enterprise Plus for VMware License incl. Maintenance 12 Months	1

**C.10 Rack Mount Virtualization Server (HP) - HPE DL380 G9, InfiniBand, 256GB RAM**

**C.10.1 Rack Mount Virtualization Server (HP) - HPE DL380 G9, InfiniBand, 256GB RAM**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	719064-B21	HPE DL380 Gen9 8SFF CTO Server	1
2	817951-L21	HPE DL380 Gen9 E5-2680v4 FIO Kit	1
3	817951-B21	HPE DL380 Gen9 E5-2680v4 Kit	1
4	805349-B21	HPE 16GB 1Rx4 PC4-2400T-R Kit	16
5	724865-B21	HPE DL380 Gen9 Universal Media Bay Kit	1
6	785067-B21	HPE 300GB 12G SAS 10K 2.5in SC ENT HDD	2
7	764284-B21	HPE IB FDR/EN 40Gb 2P 544+QSFP Adptr	2
8	719073-B21	HPE DL380 Gen9 Secondary 3 Slot RiserKit	1
9	749974-B21	HPE Smart Array P440ar/2G FIO Controller	1
10	720479-B21	HPE 800W FS Plat Ht Plg Pwr Supply Kit	2
11	BD505A	HPE iLO Adv incl 3yr TS U 1-Svr Lic	1
12	733660-B21	HPE 2U SFF Easy Install Rail Kit	1
13	733664-B21	HPE 2U CMA for Easy Install Rail Kit	1

14	U7AE6E	HPE 3Y FC 24x7 wDMR DL380 Gen9 SVC	1
15	JG327A	HPE X240 40G QSFP+ QSFP+ 3m DAC Cable	4

### C.10.2 Rack Mount Virtualization Server (HP) - HPE DL380 G9, InfiniBand, 64GB RAM

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	719064-B21	HPE DL380 Gen9 8SFF CTO Server	1
2	817927-L21	HPE DL380 Gen9 E5-2620v4 FIO Kit	1
3	817927-B21	HPE DL380 Gen9 E5-2620v4 Kit	1
4	805347-B21	HPE 8GB 1Rx8 PC4-2400T-R Kit	8
5	724865-B21	HPE DL380 Gen9 Universal Media Bay Kit	1
6	785067-B21	HPE 300GB 12G SAS 10K 2.5in SC ENT HDD	2
7	726911-B21	HPE H241 Smart HBA	3
8	719073-B21	HPE DL380 Gen9 Secondary 3 Slot RiserKit	1
9	764284-B21	HPE IB FDR/EN 40Gb 2P 544+QSFP Adptr	2
10	749974-B21	HPE Smart Array P440ar/2G FIO Controller	1
11	720479-B21	HPE 800W FS Plat Ht Plg Pwr Supply Kit	2
12	BD505A	HPE iLO Adv incl 3yr TS U 1-Svr Lic	1
13	733664-B21	HPE 2U CMA for Easy Install Rail Kit	1
14	733660-B21	HPE 2U SFF Easy Install Rail Kit	1
15	U7AE6E	HPE 3Y FC 24x7 wDMR DL380 Gen9 SVC	1
16	JG327A	HPE X240 40G QSFP+ QSFP+ 3m DAC Cable	4

### C.10.3 Rack Mount Virtualization Server (HP) - HPE DL380 G9, InfiniBand, 32GB RAM

#	-- Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	719064-B21	HPE DL380 Gen9 8SFF CTO Server	1
2	817927-L21	HPE DL380 Gen9 E5-2620v4 FIO Kit	1
3	817927-B21	HPE DL380 Gen9 E5-2620v4 Kit	1
4	805347-B21	HPE 8GB 1Rx8 PC4-2400T-R Kit	4
5	724865-B21	HPE DL380 Gen9 Universal Media Bay Kit	1
6	785067-B21	HPE 300GB 12G SAS 10K 2.5in SC ENT HDD	2
7	726911-B21	HPE H241 Smart HBA	2
8	764284-B21	HPE IB FDR/EN 40Gb 2P 544+QSFP Adptr	2
9	719073-B21	HPE DL380 Gen9 Secondary 3 Slot RiserKit	1
10	749974-B21	HPE Smart Array P440ar/2G FIO Controller	1
11	720479-B21	HPE 800W FS Plat Ht Plg Pwr Supply Kit	2
12	BD505A	HPE iLO Adv incl 3yr TS U 1-Svr Lic	1
13	733664-B21	HPE 2U CMA for Easy Install Rail Kit	1
14	733660-B21	HPE 2U SFF Easy Install Rail Kit	1
15	U7AE6E	HPE 3Y FC 24x7 wDMR DL380 Gen9 SVC	1
16	JG327A	HPE X240 40G QSFP+ QSFP+ 3m DAC Cable	4

### C.10.4 Rack Mount Virtualization Server (HP) - HPE DL380 G9, 1GE, 32GB RAM

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	755258-B21	HPE DL360 Gen9 8SFF CTO Server	1
2	818172-L21	HPE DL360 Gen9 E5-2620v4 FIO Kit	1
3	818172-B21	HPE DL360 Gen9 E5-2620v4 Kit	1
4	805347-B21	HPE 8GB 1Rx8 PC4-2400T-R Kit	4
5	785067-B21	HPE 300GB 12G SAS 10K 2.5in SC ENT HDD	2
6	749974-B21	HPE Smart Array P440ar/2G FIO Controller	1
7	629135-B22	HPE 1Gb Ethernet 4P 331FLR Adptr	1
8	647594-B21	HPE Ethernet 1Gb 4-port 331T Adapter	1
9	720478-B21	HPE 500W FS Plat Ht Plg Pwr Supply Kit	2
10	BD505A	HPE iLO Adv incl 3yr TS U 1-Svr Lic	1
11	734811-B21	HPE 1U CMA for Easy Install Rail Kit	1
12	764634-B21	HPE DL360 Gen9 SFF USB/VGA Kit	1
13	734807-B21	HPE 1U SFF Easy Install Rail Kit	1
14	U7AM0E	HPE 3Y FC 24x7 wDMR DL360 Gen9 SVC	1

### C.11 Server Upgrade – HPE BLc7000 Server Chassis W. Workstation Blades GPU

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	681844-B21	HP BLc7000 Configure-to-order Platinum Enclosure with ROHS Trial	1
2	836738-B21	HPE WS460c Gen9 E5-v4 CTO Exp Blade	3
3	836738-B21 OD1	Factory integrated	3
4	819850-L21	HPE BL460c Gen9 E5 -2667v4 FIO Kit	3
5	819850-B21	HPE BL460c Gen9 E5-2667v4 Kit	3
6	819850-B21 OD1	Factory integrated	3
7	805358-B21	HPE 64GB 4Rx4 PC4-2400T-L Kit	22
8	805358-B21 OD1	Factory integrated	22
9	832414-B21	HP 480GB 6G SATA Mixed Use-3 SFF 2.5-in SC 3yr Wty Solid State Dr	4
10	832414-B21 OD1.	Factory integrated	4
11	766491-B21	HP FlexFabric 10Gb 2P 536FLB FIO Adptr	3
12	761871-B21	HP Smart Array P244br/1G FIO Controller	3
13	805133-B21	HP MultiGPU Carrier with 2 NVIDIA Tesla M6 GPU FIO Adapter	3
14	710608-B21	HP QMH2672 16Gb FC HBA	3
15	710608-B21 OD1	Factory integrated	3
16	751465-B21	HP VC 16Gb 24-Port FC Module	2
17	751465-B21 OD1	Factory integrated	2
18	638526-B21	HP BLc VC Flex-10/10D Module Opt.	2
19	638526-B21 OD1	Factory integrated	2
20	455883-B21	HP BLc 10Gb SR SFP+ Opt	3
21	455883-B21 OD1	Factory integrated	3
22	733460-B21	HP 6X 2650W Plat Ht Plg FIO Pwr Sply Kit	1
23	456204-B21	HP c7000 enclosure redundant Onboard	1



		Administrator Module with KVM option	
24	456204-B21 OD1	Factory integrated	1
25	677595-B21	HP BLc7000 Single Phase FIO Intelligent Power Module	1
26	C6N33A	HP Insight Control for BladeSystem including 1yr 24x7 Support Enc	1
27	517520-B21	HP BLc 6X Active Cool 200 FIO Fan Opt	1
28	H4396B	HP No Additional Support Required	1

## C.12 HPE PROLIANT DL360 GEN9

### C.12.1 HPE PROLIANT DL360 GEN9 8SFF DC

#	-- Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	TC_0001	HPE PROLIANT DL360 GEN9 8SFF	1
2	755258-B21	HPE DL360 Gen9 8SFF CTO Server	1
3	818172-L21	HPE DL360 Gen9 E5-2620v4 FIO Kit	1
4	818172-B21	HPE DL360 Gen9 E5-2620v4 Kit	1
5	805347-B21	HPE 8GB 1Rx8 PC4-2400T-R Kit	4
6	872475-B21	HPE 300GB SAS 10K SFF SC DS HDD	2
7	749974-B21	HPE Smart Array P440ar/2G FIO Controller	1
8	647594-B21	HPE Ethernet 1Gb 4-port 331T Adapter	1
9	720478-B21	HPE 500W FS Plat Ht Plg Pwr Supply Kit	2
10	BD505A	HPE iLO Adv incl 3yr TS U 1-Svr Lic	1
11	AF573A	HPE Power Cable grey 10A C13-C14 200cm	2
12	734811-B21	HPE 1U CMA for Easy Install Rail Kit	1
13	664918-B21	HPE 1U Security Bezel Gen8 Kit	1
14	734807-B21	HPE 1U SFF Easy Install Rail Kit	1
15	764634-B21	HPE DL360 Gen9 SFF USB/VGA Kit	1
16	AC129A	HPE Consolidated Delivery SVC	1
17	AC111A	HPE Door/dock small product delivery SVC	1
18	U7AM3E	HPE 3y 24x7 w/DMR DL360 Gen9 ProCare SVC	1

### C.12.2 HPE PROLIANT DL380 GEN9 8SFF DPM

#	-- Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	TC_0001	HPE PROLIANT DL380 GEN9 8SFF	1
2	719064-B21	HPE DL380 Gen9 8SFF CTO Server	1
3	817927-L21	HPE DL380 Gen9 E5-2620v4 FIO Kit	1
4	817927-B21	HPE DL380 Gen9 E5-2620v4 Kit	1
5	805347-B21	HPE 8GB 1Rx8 PC4-2400T-R Kit	4
6	785067-B21	HPE 300GB 12G SAS 10K 2.5in SC ENT HDD	2
7	726911-B21	HPE H241 Smart HBA	2
8	764284-B21	HPE IB FDR/EN 40Gb 2P 544+QSFP Adptr	2
9	719073-B21	HPE DL380 Gen9 Secondary 3 Slot RiserKit	1
10	749974-B21	HPE Smart Array P440ar/2G FIO Controller	1
11	339778-B21	HPE Raid 1 Drive 1 Setting	1
12	720479-B21	HPE 800W FS Plat Ht Plg Pwr Supply Kit	2
13	BD505A	HPE iLO Adv incl 3yr TS U 1-Svr Lic	1
14	AF573A	HPE Power Cable grey 10A C13-C14 200cm	2
15	733664-B21	HPE 2U CMA for Easy Install Rail Kit	1
16	666988-B21	HPE 2U Security Bezel Kit	1

17	733660-B21	HPE 2U SFF Easy Install Rail Kit	1
18	AC129A	HPE Consolidated Delivery SVC	1
19	AC114A	HPE Door/dock medium product deliverySVC	1
20	U7AE9E	HPE 3y 24x7 w/DMR DL380 Gen9 ProCare SVC	1

### C.12.3 HPE PROLIANT DL380 GEN9 8SFF Hyper-V

#	-- Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	TC_0001	HPE PROLIANT DL380 GEN9 8SFF	1
2	719064-B21	HPE DL380 Gen9 8SFF CTO Server	1
3	817967-L21	HPE DL380 Gen9 E5-2699v4	1
4	817967-B21	HPE DL380 Gen9 E5-2699v4 Kit	1
5	805351-B21	HPE 32GB 2Rx4 PC4-2400T-R Kit	16
6	785067-B21	HPE 300GB 12G SAS 10K 2.5in SC ENT HDD	2
7	764284-B21	HPE IB FDR/EN 40Gb 2P 544+QSFP Adptr	2
8	719073-B21	HPE DL380 Gen9 Secondary 3 Slot RiserKit	1
9	749974-B21	HPE Smart Array P440ar/2G FIO Controller	1
10	339778-B21	HPE Raid 1 Drive 1 Setting	1
11	720479-B21	HPE 800W FS Plat Ht Plg Pwr Supply Kit	2
12	BD505A	HPE iLO Adv incl 3yr TS U 1-Svr Lic	1
13	AF573A	HPE Power Cable grey 10A C13-C14 200cm	2
14	733664-B21	HPE 2U CMA for Easy Install Rail Kit	1
15	666988-B21	HPE 2U Security Bezel Kit	1
16	733660-B21	HPE 2U SFF Easy Install Rail Kit	1
17	AC129A	HPE Consolidated Delivery SVC	1
18	AC114A	HPE Door/dock medium product deliverySVC	1
19	U7AE9E	HPE 3y 24x7 w/DMR DL380 Gen9 ProCare SVC	1

### C.12.4 HPE PROLIANT DL380 GEN9 8SFF SOFS

#	-- Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	TC_0001	HPE PROLIANT DL380 GEN9 8SFF	1
2	719064-B21	HPE DL380 Gen9 8SFF CTO Server	1
3	817943-L21	HPE DL380 Gen9 E5-2650v4 FIO Kit	1
4	817943-B21	HPE DL380 Gen9 E5-2650v4 Kit	1
5	805347-B21	HPE 8GB 1Rx8 PC4-2400T-R Kit	16
6	724865-B21	HPE DL380 Gen9 Universal Media Bay Kit	1
7	785067-B21	HPE 300GB 12G SAS 10K 2.5in SC ENT HDD	2
8	726911-B21	HPE H241 Smart HBA	3
9	719073-B21	HPE DL380 Gen9 Secondary 3 Slot RiserKit	1
10	764284-B21	HPE IB FDR/EN 40Gb 2P 544+QSFP Adptr	2
11	749974-B21	HPE Smart Array P440ar/2G FIO Controller	1
12	339778-B21	HPE Raid 1 Drive 1 Setting	1
13	720479-B21	HPE 800W FS Plat Ht Plg Pwr Supply Kit	2
14	BD505A	HPE iLO Adv incl 3yr TS U 1-Svr Lic	1
15	AF573A	HPE Power Cable grey 10A C13-C14 200cm	2
16	733660-B21	HPE 2U SFF Easy Install Rail Kit	1
17	733664-B21	HPE 2U CMA for Easy Install Rail Kit	1
18	AC129A	HPE Consolidated Delivery SVC	1
19	AC114A	HPE Door/dock medium product deliverySVC	1
20	U7AE9E	HPE 3y 24x7 w/DMR DL380 Gen9 ProCare SVC	1

**C.13 Powerstrip 19" Rackmount IEC 60320 C13/C14 to CEE 7/3**

#	-- Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	IP-BA-C09SH00010	Powerstrip Conteg 19" 1U Basic PDU, plug IEC 320 C14, power cord 2.8m, Outlets - 9x Schuko, power rating 10A	1

**C.14 UPS APC Smart-UPS C 1500**

#	-- Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	SMC1500I-2U	UPS SMC1500I-2U APC Smart-UPS C 1500VA 2U Rack mountable LCD 230V	1

**C.15 Rack 8U Portable ruggedized 19" server rack, racksolutions.co.uk, RACK TRANSPORT 30-8**

#	-- Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1		Rack RACK-TRANSPORT-30-8 8U, 29" Deep - Transport Case Rack	1

**C.16 SIEM Server**

#	-- Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1		Dell Precision Rack 7910 CTO base; Intel Xeon E5-2630v4; (8x16GB) 2400MHz DDR4 RDIMM ECC Internal Hard Drive RAID: C1 SATA/SSD 2.5", 1-8 Hard Drives; 4 x 500GB 2.5inch Serial ATA (7.200 Rpm) Hard Drives (with DMR); DVD+/-RW, SATA, Internal; Dual, Hot-plug, Redundant Power Supply (1+1), 1100W; 2 x Intel I350 (4x1Gbit) Quad Port Network Card; Nvidia NVS 310, 1GB, 2 DP (1 DP to SL-DVI adapter);	1
		Dell Multimedia Keyboard-KB216 - UK (QWERTY) - Black; Dell MS116 Wired Mouse Black; Windows 10 downgradeable to Windows 7 Pro 3y Basic Warranty - Next Business Day	

**C.17 ReadyRails Sliding Rails**

#	-- Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1		ReadyRails Sliding Rails Without Cable Management Arm (Kit) (770-BBKW)	1

**C.18 Veeam Agent for Microsoft Windows Server edition**

#	-- Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1		Veeam Agent for Microsoft Windows Server edition Veeam Windows Agent Svr 3 year 24x7 LTU	1

**C.19 HP DL360 Gen9 2P LP PCIe Slot CPU2 Kit**

#	-- Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	764642-B21	HP DL360 Gen9 2P LP PCIe Slot CPU2 Kit	1

**C.20 Patch Cord Cat6 5m**

#	-- Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	SSTP-C6-5GR-E	Patch Cord Cat6 5	1

**C.21 OM3 MM LC-LC patch 5m**

#	-- Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	FM-L-LC/LC- D5-3-O	OM3 MM LC-LC patch 5m	1

**C.22 Dell PowerEdge R740 Server O3 Design**

#	Item	Item #	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	Base	[210-AKXJ] / R740	PowerEdge R740 Server	1
2	Trusted Platform Module	[461-AAEM] / 5098754	Trusted Platform Module 2.0	1
3	Chassis	321-BCSM] / 5102143	Chassis with up to 8 x 2.5" SAS/SATA Hard Drives for 2CPU Configuration	1
4	Processor	[338-BLLY] / 5101080	Intel® Xeon® Gold 6126 2.6G,12C/24T,10.4GT/s, 19.25M Cache, Turbo,HT (125W) DDR4- 2666	1
5	Additional Processor	[374-BBNT] / 5101081	Intel® Xeon® Gold 6126 2.6G,12C/24T,10.4GT/s, 19.25M Cache, Turbo,HT (125W) DDR4- 2666	1
6	Processor Thermal Configuration	[412- AAIQ][412-AAIQ] / 5099793	2 Standard Heatsinks for 125W or less CPUs	1
7	Memory DIMM Type and Speed	[370-ADNU] / 5099278	2666MT/s RDIMMs	1
8	Memory Configuration	[370-AAIP] / PEOPT	Performance Optimized	1

	Type			
9	Memory	[370-ADNF] / 5098890	32GB RDIMM, 2666MT/s, Dual Rank	8
10	RAID	[780-BCDS] / 5098876	C7, Unconfigured RAID for HDDs or SSDs (Mixed Drive Types Allowed)	1
11	RAID/Internal Storage Controllers	405-AANP] / 5102432	ERC H330 RAID Controller, Adapter, Low Profile	1
12	Hard Drive	[400-ASEZ] / 5103679	960GB SSD SAS Read Intensive 12Gbps 512n 2.5in Hot-plug Drive, PX05SR,1 DWPD,1752 TBW	4
13	Boot Optimized Storage Cards	n/a	None	1
14	Operating System	[619-ABVR] / NOOS	No Operating System	1
15	OS Media Kits	421-5736] / NOMED	No Media Required	1
16	Embedded Systems Management	[385-BBKS] / 5099557	iDRAC9, Express	1
17	Group Manager	[379-BCQY] / 5100926	iDRAC Group Manager, Disabled	1
18	Password	[379-BCSG] / 5101344	iDRAC, Legacy Password	1
19	PCIe Riser	[330-BBGZ] / 5101678	Riser Config 1, 4 x8 slots	1
20	Network Daughter Card	[540-BBBW] / 5720QP	Broadcom 5720 QP 1Gb Network Daughter Card	1
21	Additional Network Cards	[540-BBHQ] / X710QP	Intel X710 Quad Port 10Gb Direct Attach, SFP+, Converged Network Adapter	1
22	Optics & Cables for Network Cards	407-BCBE] / G0FVJIE	SFP+ SR Optic, 10GbE, for all SFP+ ports, excludes Intel X520 and high temp validation warning cards	4
23	IDSDM and VFlash Card Reader	n/a	None	1
24	Internal SD Module	n/a	None	1
25	Internal Optical Drive	[429-ABBT] / DVDSN	DVD+/-RW, SATA, Int	1
26	Fans	[384-BBPZ] / 5100148	6 Performance Fans for R740/740XD	1
27	Power Supply	[450-AFMQ] / R1600W	Dual, Hot-plug, Redundant Power Supply (1+1), 1600W, 250 Volt Power Cord Required for Use	1
28	Power Cords	[450-AAGG] / NPWRCD	No Power Cord	1
29	Bezel	[325- BCHV][350- BBKG] / 5099783	PowerEdge 2U LCD Bezel	1
30	Quick Sync 2 (Wireless At-	[350-BBJV] / 5101166	No Quick Sync	1

	the-box mgmt)			
31	BIOS and Advanced System Configuration Settings	[384-BBBL] / HPBIOS	Performance BIOS Setting	1
32	Rack Rails	[770-BBBQ] / RNOCPMA	ReadyRails™ Sliding Rails Without Cable Management Arm	1
33	Server Accessories	[750-AAVV] / 5101970	USB 3.0 for R740	1
34	Server Accessories	[570- AAKV][580-ADJC] / KMEN1	Keyboard and Optical Mouse, USB, Black, English	1
35	System Documentation	[631-AAACK] / NODOCS	No Systems Documentation, No OpenManage DVD Kit	1
36	Enabled Virtualization	n/a	None	1
37	Microsoft SQL Server	n/a	None	1
38	Web Tracking	n/a	None	1
39	GSA Purchase Order	n/a	None	1
40	iDRAC Service Module	n/a	None	1
41	ProSupport for Microsoft Applications	n/a	None	1
42	Additional Software	Na/	None	1
43	Warranty	[813-9119][813-9127][813-9141][989-3439] / PN5	5 Years ProSupport with Next Business Day Onsite Service	1
44	Deployment Services	[900-9997] / NOINSTL	No Installation	1
45	Keep Your Hard Drive	[980-3634] / KYHD5	Keep Your Hard Drive, 5 Years ,PIT	1

**C.23 Dell 330 Management Machine**

#	Item	Item #	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	Processor	[210-APUR][321-BCPV][325- BCHV][329-BDKH][330-BBHG][338-BLUS][350-BBJU][350-BBQY][370- AAIP][370-ABWE][370-ADND][370-ADND][370-ADND][370-ADND][370-ADNU][374-BBPP][405-AAQU][412-AAIP][412- AAIP] / GEFY91Z	Dell EMC NX3240, Dual Intel Xeon Silver 4114 2.2G, 64GB Mem, Performance Config	1
2	Operating System	[634-BRMV] / G83PIDH	Microsoft Windows Storage Server 2016 Standard Edition	1
3	RAID	[780-BCJY] / GD52ISR	C13, RAID 6 for 4 or more HDDs or SSDs (Matching Type/Speed/Capacity)	1
4	Hard Drive	[401-ABCF] / 5103832	600GB 10K RPM SAS 12Gbps 512n 2.5in Flex Bay Hard Drive, 3.5in HYB CARR	2
5	Hard Drives (Front Bay)	[400-ASHY] / 5103977	4TB 7.2K RPM NLSAS 12Gbps 512n 3.5in Hot-plug Hard Drive	12
6	Power Supply	[450-ADWM] / 1100R	Dual, Hot-plug, Redundant Power Supply (1+1), 1100W	1
7	Power Cords	[450-AAGG] / NPWRCD	No Power Cord	1
8	Network Daughter Card	[555-BCKP] / X710SP	Intel X710 Quad Port 10Gb DA/SFP+ Ethernet, Network Daughter Card	1
9	Embedded Systems Management	[385-BBKT] / 5099556	iDRAC9,Enterprise	1
10	Trusted Platform Module	[461-AAEM] / 5098754	Trusted Platform Module 2.0	1
11	Rack Rails	[770-BBBQ] / RNOCMA	ReadyRails™ Sliding Rails Without Cable Management Arm	1
12	External Optical Drive	[429-AAOK] / 8DRUSB	8X DVD-ROM, USB, External	1
13	Password	[379-BCSG] / 5101344	iDRAC, Legacy Password	1
14	Warranty	[818-4655][818-4710][818-4712][818-4721][951-2015][975-3461] / GGQB4Z7	5 Years ProSupport Plus Next Business Day Onsite Service	1

15	Deployment Services	[900-9997] / NOINSTL	No Installation	1
16	Keep Your Hard Drive	[711-10109] / KYHD5	Keep Your Hard Drive, 5 Years	1

**C.24 OM3 MM LC-LC patch 3m**

#	Item	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	AT-LCLCOM3DP U 3	LC - LC Duplex OM3 50/125 Patch Cord - 3 m	1

**C.25 HPE Synergy Solution**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Rack equipment	P9K46A	HPE 42U 800x1200 Ent G2 Shock Rack	1
2.	Service	P9K46A#1	HPE Factory Express Base Racking Service	1
3.	Fans	797740-B21	HPE Synergy12000 CTO Frame 1xFLM 10x Fan	1
4.	Service	797740-B21#0D1	Factory integrated	1
5.	Form Factor	871940-B21	HPE SY 480 Gen10 CTO Cmpt Mdl	3
6.	Service	871940-B21#0D1	Factory integrated	3
7.	CPU	881652-L21	HPE SY 480_660 Gen10 Xeon-G 6143 FIO Kit	3
8.	CPU	881652-B21	HPE SY 480_660 Gen10 Xeon-G 6143 Kit	3
9.	Service	881652-B21#0D1	Factory integrated	3
10.	Memory	815101-B21	HPE 64GB 4Rx4 PC4-2666V-L Smart Kit	48
11.	Service	815101-B21#0D1	Factory integrated	48
12.	Controller	872955-B21	HPE Synergy Gen10 SATA FIO Board Kit	3
13.	Controller	777430-B21	HPE Synergy 3820C 10_20Gb CNA	3
14.	Service	777430-B21#0D1	Factory integrated	3
15.	SD card storage	700139-B21	HPE 32GB microSD Flash Memory Card	3
16.	Service	700139-B21#0D1	Factory integrated	3
17.	Form Factor	871940-B21	HPE SY 480 Gen10 CTO Cmpt Mdl	7
18.	Service	871940-B21#0D1	Factory integrated	7
19.	CPU	873380-L21	HPE SY 480_660 Gen10 Xeon-G 6132 FIO Kit	7



20.	CPU	873380-B21	HPE SY 480_660 Gen10 Xeon-G 6132 Kit	7
21.	Service	873380-B21#0D1	Factory integrated	7
22.	Memory	815101-B21	HPE 64GB 4Rx4 PC4- 2666V-L Smart Kit	112
23.	Service	815101-B21#0D1	Factory integrated	112
24.	Controller	872955-B21	HPE Synergy Gen10 SATA FIO Board Kit	7
25.	Controller	777430-B21	HPE Synergy 3820C 10_20Gb CNA	7
26.	Service	777430-B21#0D1	Factory integrated	7
27.	SD card storage	700139-B21	HPE 32GB microSD Flash Memory Card	7
28.	Service	700139-B21#0D1	Factory integrated	7
29.	Network module	794502-B23	HPE VC SE 40Gb F8 Module	2
30.	Service	794502-B23#0D1	Factory integrated	2
31.	Connector modules	817040-B21	HPE Synergy 40_4x10GbE_4x8GbFC QSFP XCVR	6
32.	Service	817040-B21#0D1	Factory integrated	6
33.	License	N3R43A	HPE Synergy 8Gb FC License Upgrade	2
34.	Service	N3R43A#0D1	Factory integrated	2
35.	Power Supply	798096-B21	HPE Synergy 12000F 6x 2650W AC Ti FIO PS	1
36.	Rack equipment	804938-B21	HPE Synergy 12000 Frame Rack Rail Option	1
37.	Service	804938-B21#0D1	Factory integrated	1
38.	Controller	804353-B21	HPE Synergy Composer	2
39.	Service	804353-B21#0D1	Factory integrated	2
40.	Controller	804942-B21	HPE Synergy Frame Link Module	1
41.	Service	804942-B21#0D1	Factory integrated	1
42.	Rack equipment	804943-B21	HPE Synergy 12000 Frame 4x Lift Handle	1
43.	Service	804943-B21#0D1	Factory integrated	1
44.	Patchcord	720199-B21	HPE BLc 40G QSFP+ QSFP+ 3m DAC Cable	2
45.	Service	720199-B21#0D1	Factory integrated	2
46.	Patchcord	861412-B21	HPE CAT6A 4ft Cbl	1
47.	Service	861412-B21#0D1	Factory integrated	1
48.	Rack equipment	P9R85A	HPE G2 Mtrd 3P 22kVA_C13-C19 Vt INTL PDU	2
49.	Service	P9R85A#0D1	Factory integrated	2
50.	Rack equipment	120672-B21	HPE Rack Ballast Kit	1
51.	Service	120672-B21#0D1	Factory integrated	1
52.	Rack equipment	BW933A	HPE 800mm Rack Stabilizer Kit	1
53.	Service	BW933A#B01	Include with complete system	1

54.	Rack equipment	H6J85A	HPE Rack Hardware Kit	1
55.	Patchcord	K2Q47A	HPE MPO to 4 x LC 15m Cable	6
56.	Warranty	HT7A6A3	HPE 3Y DC 24x7 wDMR Addon SVC	1
57.	Warranty	HT7A6A3#X09	HPE ISS price band 2 CDMR Service	15
58.	Warranty	HT7A6A3#WJP	HPE Synergy Composer Supp	2
59.	Warranty	HT7A6A3#W4A	HPE SY480 Gen10 Support	10
60.	Warranty	HT7A6A3#WJN	HPE Synergy 1200 Frame Supp	1
61.	Warranty	HT7A6A3#WJR	HPE Synergy VC SE 40Gb F8 Module Supp	2
62.	Service	HA124A1	HPE Technical Installation Startup SVC	1
63.	Service	HA124A1#5ZM	HPE Synergy First Frame Startup SVC	1
64.	Service	HF385A1	HPE Trng Credits Servers_HybridIT SVC	3

**C.26 RESERVED**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>

**C.27 HPE ProLiant BL460c Gen10 10Gb/20Gb FlexibleLOM Configure-to-order Blade Server**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Server	863442-B21	HPE ProLiant BL460c Gen10 10Gb/20Gb FlexibleLOM Configure- to-order Blade Server	1
2.	CPU	875942-L21	HPE BL460c Gen10 Intel Xeon-Gold 6130 (2.1GHz/16-core/120W) FIO Processor Kit	1
3.	CPU	875942-B21	HPE BL460c Gen10 Intel Xeon-Gold 6130 (2.1GHz/16-core/120W) Processor Kit	1
4.	Service	875942-B21 0D1	Factory Integrated	1

5.	Memory	815101-B21	HPE 64GB (1x64GB) Quad Rank x4 DDR4- 2666 CAS-19-19-19 Load Reduced Smart Memory Kit	8
6.	Service	815101-B21 0D1	Factory Integrated	8
7.	Hard drive	872475-B21	HPE 300GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	2
8.	Service	872475-B21 0D1	Factory Integrated	2
9.	Storage Battery	P01363-B21	HPE 12W Smart Storage Battery (up to 3 Devices) for BladeSystem Server	1
10.	Service	P01363-B21 0D1	Factory Integrated	1
11.	Storage controller	804367-B21	HPE Smart Array P204i-b SR Gen10 (4 Internal Lanes/1GB Cache) 12G SAS Modular Controller	1
12.	Service	804367-B21 0D1	Factory Integrated	1
13.	Network adapter	766490-B21	HPE FlexFabric 10Gb 2-port 536FLB Adapter	1
14.	Service	766490-B21 0D1	Factory Integrated	1
15.	Network adapter	700748-B21	HPE FlexFabric 10Gb 2-port 534M Adapter	1
16.	Service	700748-B21 0D1	Factory Integrated	1
17.	RAID 1 Drive 1 FIO Setting	339778-B21	HPE RAID 1 Drive 1 FIO Setting	1
18.	Management adapter	BD505A	HPE iLO Advanced 1- server License with 3yr Support on iLO Licensed Features	1
19.	Service	BD505A 0D1	Factory Integrated	1
20.	Service	AC111A	HPE ProLiant Door/dock Small Logistic Service	1
21.	Software	BD514AAE	VMware vSphere Enterprise Plus 1 Processor 5yr E-LTU	2
22.	Warranty	H7J35A5	HPE 5Y Foundation Care 24x7 wDMR SVC	1
23.	Warranty	H7J35A5 R5M	HPE VMw vSphere EntPlus 1P 5yr SW Supp	2
25.	Warranty	H7J35A5 R2M	HPE iLO Advanced Non Blade - 3yr Support	1
26.	Warranty	H7J35A5 W4C	HPE BL460c Gen10 Support	1

**C.28 HPE ProLiant DL380 Gen10 24SFF Configure-to-order Server**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Server	868704-B21	HPE ProLiant DL380 Gen10 24SFF Configure-to-order Server	1
2.	Service	868704-B21 B19	HPE DL380 Gen10 24SFF CTO Server	1
3.	CPU	P02494-L21	HPE DL380 Gen10 Intel Xeon-Silver 4215 (2.5GHz/8-core/85W) FIO Processor Kit	1
4.	CPU	P02494-B21	HPE DL380 Gen10 Intel Xeon-Silver 4215 (2.5GHz/8-core/85W) Processor Kit	1
5.	Service	P02494-B21 0D1	Factory Integrated	1
6.	Memory	P00920-B21	HPE 16GB (1x16GB) Single Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	4
7.	Service	P00920-B21 0D1	Factory Integrated	4
8.	Hard drive	765466-B21	HPE 2TB SAS 12G Midline 7.2K SFF (2.5in) SC 1yr Wty 512e HDD	4
9.	Service	765466-B21 0D1	Factory Integrated	4
10.	Hard drive	P06194-B21	HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	2
11.	Service	P06194-B21 0D1	Factory Integrated	2
12.	SAS Expander Card	870549-B21	HPE DL38X Gen10 12Gb SAS Expander Card Kit with Cables	1
13.	Service	870549-B21 0D1	Factory Integrated	1
14.	Network adapter	615732-B21	HPE Ethernet 1Gb 2-port 332T Adapter	2
15.	Service	615732-B21 0D1	Factory Integrated	2
16.	Storage Capacitor	P02377-B21	HPE Smart Storage Hybrid Capacitor with 145mm Cable Kit	1
17.	Service	P02377-B21 0D1	Factory Integrated	1
18.	Storage controller	804331-B21	HPE Smart Array P408i-a SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS Modular Controller	1
19.	Service	804331-B21 0D1	Factory Integrated	1

20.	Power Supply	865414-B21	HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	2
21.	Service	865414-B21 OD1	Factory Integrated	2
22.	Management adapter	BD505A	HPE iLO Advanced 1-server License with 3yr Support on iLO Licensed Features	1
23.	Service	BD505A OD1	Factory Integrated	1
25.	Management	P8B31A	HPE OneView w/o iLO including 3yr 24x7 Support 1-server FIO LTU	1
26.	Install Rail Kit	733660-B21	HPE 2U Small Form Factor Easy Install Rail Kit	1
27.	Service	733660-B21 OD1	Factory Integrated	1

### C.29 HPE DL360 Gen10 8SFF CTO Server

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Server	867959-B21	HPE DL360 Gen10 8SFF CTO Server	1
2.	Service	867959-B21 / B19	HPE DL360 Gen10 8SFF CTO Server	1
3.	CPU	P02571-L21	HPE DL360 Gen10 Xeon-S 4208 FIO Kit	1
4.	CPU	P02571-B21	HPE DL360 Gen10 Xeon-S 4208 Kit	1
5.	Service	P02571-B21 / OD1	Factory Integrated	1
6.	Memory	P00920-B21	HPE 16GB 1Rx4 PC4-2933Y-R Smart Kit	2
7.	Service	P00920-B21 / OD1	Factory Integrated	2
8.	ODD Kit	868000-B21	HPE DL360 Gen10 8SFF DP/USB/ODD Blnk Kit	1
9.	Service	868000-B21 / OD1	Factory Integrated	1
10.	Hard Drive	872475-B21	HPE 300GB SAS 10K SFF SC DS HDD	2
11.	Service	872475-B21 / OD1	Factory Integrated	2
12.	Network Adapter	647594-B21	HPE Ethernet 1Gb 4-port 331T Adapter	1
13.	Service	647594-B21 / OD1	Factory integrated	1
14.	Smart Hybrid Capacitor	P02377-B21	HPE Smart Hybrid Capacitor w/ 145mm Cbl	1
15.	Service	P02377-B21 / OD1	Factory Integrated	1
16.	Storage Controller	804331-B21	HPE Smart Array P408i-a SR Gen10 Ctrlr	1
17.	Service	804331-B21 / OD1	Factory Integrated	1
18.	Power Supply	865408-B21	HPE 500W FS Plat Ht	

			Plg LH Pwr Sply Kit	2
19.	Service	865408-B21 / OD1	Factory Integrated	2
20.	Cable	AF573A	HPE Rdnt 2m 10A C13-C14 Jpr Cord	2
21.	Service	AF573A / OD1	Factory integrated	2
22.	Management Adapter	BD505A	HPE iLO Adv 1-svr Lic 3yr Support	1
23.	Service	BD505A / OD1	Factory integrated	1
24.	Install Rail Kit	734811-B21	HPE 1U CMA for Easy Install Rail Kit	1
25.	Service	734811-B21 / OD1	Factory integrated	1
26.	Bezel Kit	867998-B21	HPE 1U Gen10 Bezel Kit	1
27.	Service	867998-B21 / OD1	Factory Integrated	1
28.	Install Rail Kit	874543-B21	HPE 1U Gen10 SFF Easy Install Rail Kit	1
29.	Service	874543-B21 / OD1	Factory Integrated	1
30.	Service	AC111A	HPE Door/dock Small Delivery SVC	1
31.	Service	AC129A	HPE Consolidated Delivery SVC	1
32.	Support	H8QF4E	HPE 3Y PC 24x7 wDMR DL360 Gen10 SVC	1

**C.30 JWC - NS - 3xFrame v3**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	Server	5117826935-03	JWC - NS - 3xFrame v3	1
2	Rack equipment	P9K46A	HPE 42U 800x1200 Ent G2 Shock Rack	1
3	Service	P9K46A#001	HPE Factory Express Base Racking Service	1
4	Fan	P06011-B21	HPE Synergy 12000 CTO Frame 10x Fan	1
5	Server	871940-B21	HPE SY 480 Gen10 CTO Cmpt Mdl	8
6	CPU	P07347-L21	HPE SY 480/660 Gen10 Xeon-G 6242 FIO Kit	8
7	CPU	P07347-B21	HPE SY 480/660 Gen10 Xeon- G 6242 Kit	8
8	Memory	P00926-B21	HPE 64GB 4Rx4 PC4-2933Y-L Smart Kit	96
9	Adapter	872955-B21	HPE Synergy Gen10 SATA FIO Board Kit	8
10	Network Adapter	876449-B21	HPE Synergy 4820C 10/20/25Gb CNA	8
11	Memory	700139-B21	HPE 32GB microSD Flash Memory Card	8
12	Form factor	871940-B21	HPE SY 480 Gen10 CTO Cmpt Mdl	2
13	CPU	P07347-L21	HPE SY 480/660 Gen10 Xeon- G 6242 FIO Kit	2
14	CPU	P07347-B21	HPE SY 480/660 Gen10 Xeon- G 6242 Kit	2

15	Memory	P00926-B21	HPE 64GB 4Rx4 PC4-2933Y-L Smart Kit	24
16	Adapter	872955-B21	HPE Synergy Gen10 SATA FIO Board Kit	2
17	Network Adapter	876449-B21	HPE Synergy 4820C 10/20/25Gb CNA	2
18	Memory	700139-B21	HPE 32GB microSD Flash Memory Card	2
19	Adapter	P14255-B21	HPE SY 480 Gen10 PCIe x4 Exp Mod	2
20	GPU	R0W29C	HPE NVIDIA Tesla T4 16GB Module	8
21	Network Adapter	867793-B21	HPE Synergy 50Gb Interconnect Link Mod	1
22	Network Adapter	867796-B21	HPE VC SE 100GbF32 Module	1
23	SFP	455883-B21	HPE BLc 10G SFP+ SR Transceiver	1
24	SFP	882251-B21	HPE SY 100GE/4x25GE/4x32GFC QSFP28 XCVR	3
25	License	R3P67A	HPE Synergy 32Gb FC Upgrade FIO LTU	1
26	Power Supply	798096-B21	HPE Synergy 12000F 6x 2650W AC Ti FIO PS	1
27	Rack equipment	804938-B21	HPE Synergy 12000 Frame Rack Rail Option	1
28	Rack equipment	804943-B21	HPE Synergy 12000 Frame 4x Lift Handle	1
29	Rack equipment	859493-B21	Synergy Multi Frame Master1 FIO	1
30	Server	872957-B21	HPE Synergy Composer2 Appliance	1
31	Network Adapter	876852-B21	HPE Synergy 4-port Frame Link Module	2
32	Cable	487655-B21	HPE BLc 10G SFP+ SFP+ 3m DAC Cable	3
33	Cable	876689-B21	HPE SY 300Gb Interconnect Link 3m AOC	8
34	Cable	845406-B21	HPE 100Gb QSFP28 to QSFP28 3m DAC	2
35	Fan	P06011-B21	HPE Synergy 12000 CTO Frame 10x Fan	1
36	Form factor	871940-B21	HPE SY 480 Gen10 CTO Cmpt Mdl	8
37	CPU	P07347-L21	HPE SY 480/660 Gen10 Xeon- G 6242 FIO Kit	8
38	CPU	P07347-B21	HPE SY 480/660 Gen10 Xeon- G 6242 Kit	8
39	Memory	P00926-B21	HPE 64GB 4Rx4 PC4-2933Y-L Smart Kit	96
40	Adapter	872955-B21	HPE Synergy Gen10 SATA FIO Board Kit	8
41	Network Adapter	876449-B21	HPE Synergy 4820C 10/20/25Gb CNA	8
42	Memory		HPE 32GB microSD Flash	

		700139-B21	Memory Card	8
43	Form factor	871940-B21	HPE SY 480 Gen10 CTO Cmpt Mdl	2
44	CPU	P07347-L21	HPE SY 480/660 Gen10 Xeon-G 6242 FIO Kit	2
45	CPU	P07347-B21	HPE SY 480/660 Gen10 Xeon- G 6242 Kit	2
46	Memory	P00926-B21	HPE 64GB 4Rx4 PC4-2933Y- L Smart Kit	24
47	Adapter	872955-B21	HPE Synergy Gen10 SATA FIO Board Kit	2
48	Network Adapter	876449-B21	HPE Synergy 4820C 10/20/25Gb CNA	2
49	Memory	700139-B21	HPE 32GB microSD Flash Memory Card	2
50	Adapter	P14255-B21	HPE SY 480 Gen10 PCIe x4 Exp Mod	2
51	GPU	R0W29C	HPE NVIDIA Tesla T4 16GB Module	8
52	Network Adapter	867793-B21	HPE Synergy 50Gb Interconnect Link Mod	2
53	Power Supply	798096-B21	HPE Synergy 12000F 6x 2650W AC Ti FIO PS	1
54	Rack equipment	804938-B21	HPE Synergy 12000 Frame Rack Rail Option	1
55	Network Adapter	876852-B21	HPE Synergy 4-port Frame Link Module	2
56	Fan	P06011-B21	HPE Synergy 12000 CTO Frame 10x Fan	1
57	Form factor	871940-B21	HPE SY 480 Gen10 CTO Cmpt Mdl	9
58	CPU	P07347-L21	HPE SY 480/660 Gen10 Xeon- G 6242 FIO Kit	9
59	CPU	P07347-B21	HPE SY 480/660 Gen10 Xeon- G 6242 Kit	9
60	Memory	P00926-B21	HPE 64GB 4Rx4 PC4-2933Y- L Smart Kit	108
61	Adapter	872955-B21	HPE Synergy Gen10 SATA FIO Board Kit	9
62	Network Adapter	876449-B21	HPE Synergy 4820C 10/20/25Gb CNA	9
63	Memory	700139-B21	HPE 32GB microSD Flash Memory Card	9
64	Form factor	871940-B21	HPE SY 480 Gen10 CTO Cmpt Mdl	1
65	CPU	P07347-L21	HPE SY 480/660 Gen10 Xeon-G 6242 FIO Kit	1
66	CPU	P07347-B21	HPE SY 480/660 Gen10 Xeon-G 6242 Kit	1
67	Memory	P00926-B21	HPE 64GB 4Rx4 PC4-2933Y- L Smart Kit	12
68	Adapter	872955-B21	HPE Synergy Gen10 SATA FIO Board Kit	1
69	Network Adapter	876449-B21	HPE Synergy 4820C 10/20/25Gb CNA	1
70	Memory		HPE 32GB microSD Flash	



		700139-B21	Memory Card	1
71	Adapter	P14255-B21	HPE SY 480 Gen10 PCIe x4 Exp Mod	1
72	GPU	R0W29C	HPE NVIDIA Tesla T4 16GB Module	4
73	Network Adapter	867793-B21	HPE Synergy 50Gb Interconnect Link Mod	1
74	Network Adapter	867796-B21	HPE VC SE 100GbF32 Module	1
75	SFP	455883-B21	HPE BLc 10G SFP+ SR Transceiver	1
76	SFP	882251-B21	HPE SY 100GE/4x25GE/4x32GFC QSFP28 XCVR	3
77	License	R3P67A	HPE Synergy 32Gb FC Upgrade FIO LTU	1
78	Power Supply	798096-B21	HPE Synergy 12000F 6x 2650W AC Ti FIO PS	1
79	Rack equipment	804938-B21	HPE Synergy 12000 Frame Rack Rail Option	1
80	Adapter	859494-B22	Synergy Multi Frame Master2 FIO	1
81	Server	872957-B21	HPE Synergy Composer2 Appliance	1
82	Network Adapter	876852-B21	HPE Synergy 4-port Frame Link Module	2
83	Support	Q2D90A	NVIDIA GRID vPC Prod SUMS 3y 1CU SVC	320
84	License	Q2D78A	NVIDIA GRID vPC Perpetual LTU	320
85	Rack equipment	P9Q37A	HPE G2 Basic 3.6kVA/(12) C13 WW PDU	1
86	Rack equipment	P9Q64A	HPE G2 Mtrd 3P 22kVA/C13-C19 Vt INTL PDU	2
87	Cable	AJ836A	HPE 5m Multi-mode OM3 LC/LC FC Cable	2
88	Cable	K2Q47A	HPE MPO to 4 x LC 15m Cable	6
89	Service	P1F64A	HPE Inside Unpack/Clean Up w/Lift XLSVC	1
90	Service	HT7A5A3	HPE 3Y Datacenter Care 24x7 Addon SVC	1
91	Support	HT7A5A3#W4A	HPE SY480 Gen10 Support	30
92	Support	HT7A5A3#WJN	HPE Synergy 1200 Frame Supp	3
93	Support	HT7A5A3#X0Z	HPE SY480 Exp Module Support	5
94	Support	HT7A5A3#Z1Q	HPE Synergy Composer2 Support	2
95	Support	HT7A5A3#Z1R	HPE Synergy VC SE 100Gb F32 Module Supp	2
96	Support	HT7A5A3#Z1S	HPE Synergy 50Gb IC Link Module Support	4
97	Service	HA124A1	HPE Technical Installation Startup SVC	1
98	Service		HPE Synergy Additional	

		HA124A1#5ZQ	Frame Startup SVC	2
99	Service	HA124A1#5ZM	HPE Synergy First Frame Startup SVC	1

**C.31 JWC- M166 - 2xFrame v2**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1	Server	5117838127-02	JWC - M166- 2xFrame v2	1
2	Rack equipment	P9K46A	HPE 42U 800x1200 Ent G2 Shock Rack	1
3	Service	P9K46A#001	HPE Factory Express Base Racking Service	1
4	Fan	P06011-B21	HPE Synergy 12000 CTO Frame 10x Fan	1
5	Server	871940-B21	HPE SY 480 Gen10 CTO Cmpt Mdl	2
6	CPU	P07347-L21	HPE SY 480/660 Gen10 Xeon-G 6242 FIO Kit	2
7	CPU	P07347-B21	HPE SY 480/660 Gen10 Xeon- G 6242 Kit	2
8	Memory	P00926-B21	HPE 64GB 4Rx4 PC4-2933Y-L Smart Kit	24
9	Adapter	872955-B21	HPE Synergy Gen10 SATA FIO Board Kit	2
10	Network Adapter	876449-B21	HPE Synergy 4820C 10/20/25Gb CNA	2
11	Memory	700139-B21	HPE 32GB microSD Flash Memory Card	2
12	Adapter	P14255-B21	HPE SY 480 Gen10 PCIe x4 Exp Mod	2
13	GPU	R0W29C	HPE NVIDIA Tesla T4 16GB Module	8
14	Form factor	871940-B21	HPE SY 480 Gen10 CTO Cmpt Mdl	5
15	CPU	P07347-L21	HPE SY 480/660 Gen10 Xeon- G 6242 FIO Kit	5
16	CPU	P07347-B21	HPE SY 480/660 Gen10 Xeon- G 6242 Kit	5
17	Memory	P00926-B21	HPE 64GB 4Rx4 PC4-2933Y-L Smart Kit	60
18	Adapter	872955-B21	HPE Synergy Gen10 SATA FIO Board Kit	5
19	Network Adapter	876449-B21	HPE Synergy 4820C 10/20/25Gb CNA	5

20	Memory	700139-B21	HPE 32GB microSD Flash Memory Card	5
21	Network Adapter	867793-B21	HPE Synergy 50Gb Interconnect Link Mod	1
22	Network Adapter	867796-B21	HPE VC SE 100GbF32 Module	1
23	SFP	455883-B21	HPE BLc 10G SFP+ SR Transceiver	1
24	SFP	882251-B21	100GE/4x25GE/4x32 GFC QSFP28 XCVR	3
25	License	R3P67A	HPE Synergy 32Gb FC Upgrade FIO LTU	1
26	Power Supply	798096-B21	HPE Synergy 12000F 6x 2650W AC Ti FIO PS	1
27	Rack equipment	804938-B21	HPE Synergy 12000 Frame Rack Rail Option	1
28	Rack equipment	804943-B21	HPE Synergy 12000 Frame 4x Lift Handle	1
29	Rack equipment	859493-B21	Synergy Multi Frame Master1 FIO	1
30	Server	872957-B21	HPE Synergy Composer2 Appliance	1
31	Network Adapter	876852-B21	HPE Synergy 4-port Frame Link Module	2
32	Cable	487655-B21	HPE BLc 10G SFP+ SFP+ 3m DAC Cable	2
33	Cable	876689-B21	HPE SY 300Gb Interconnect Link 3m AOC	4
34	Cable	845406-B21	HPE 100Gb QSFP28 to QSFP28 3m DAC	2
35	Fan	P06011-B21	HPE Synergy 12000 CTO Frame 10x Fan	1
36	Form factor	871940-B21	HPE SY 480 Gen10 CTO Cmpnt Mdl	6
37	CPU	P07347-L21	HPE SY 480/660 Gen10 Xeon-G 6242 FIO Kit	6
38	CPU	P07347-B21	HPE SY 480/660 Gen10 Xeon-G 6242 Kit	6
39	Memory	P00926-B21	HPE 64GB 4Rx4 PC4-2933Y-L Smart Kit	72
40	Adapter	872955-B21	HPE Synergy Gen10 SATA FIO Board Kit	6
41	Network Adapter	876449-B21	HPE Synergy 4820C 10/20/25Gb CNA	6
42	Memory	700139-B21	HPE 32GB microSD	

			Flash Memory Card	6
43	Form factor	871940-B21	HPE SY 480 Gen10 CTO Cmpt Mdl	2
44	CPU	P07347-L21	HPE SY 480/660 Gen10 Xeon-G 6242 FIO Kit	2
45	CPU	P07347-B21	HPE SY 480/660 Gen10 Xeon-G 6242 Kit	2
46	Memory	P00926-B21	HPE 64GB 4Rx4 PC4- 2933Y-L Smart Kit	24
47	Adapter	872955-B21	HPE Synergy Gen10 SATA FIO Board Kit	2
48	Network Adapter	876449-B21	HPE Synergy 4820C 10/20/25Gb CNA	2
49	Memory	700139-B21	HPE 32GB microSD Flash Memory Card	2
50	Adapter	P14255-B21	HPE SY 480 Gen10 PCIe x4 Exp Mod	2
51	GPU	R0W29C	HPE NVIDIA Tesla T4 16GB Module	8
52	Network Adapter	867793-B21	HPE Synergy 50Gb Interconnect Link Mod	1
53	Network Adapter	867796-B21	HPE VC SE 100GbF32 Module	1
54	SFP	455883-B21	HPE BLc 10G SFP+ SR Transceiver	1
55	SFP	882251-B21	HPE SY 100GE/4x25GE/4x32 GFC QSFP28 XCVR	3
56	License	R3P67A	HPE Synergy 32Gb FC Upgrade FIO LTU	1
57	Power Supply	798096-B21	HPE Synergy 12000F 6x 2650W AC Ti FIO PS	1
58	Rack equipment	804938-B21	HPE Synergy 12000 Frame Rack Rail Option	1
59	Rack equipment	859494-B22	Synergy Multi Frame Master2 FIO	1
60	Server	872957-B21	HPE Synergy Composer2 Appliance	1
61	Adapter	876852-B21	HPE Synergy 4-port Frame Link Module	2
62	License	Q2D78A	NVIDIA GRID vPC Perpetual LTU	256
63	Support	Q2D90A	NVIDIA GRID vPC Prod SUMS 3y 1CU SVC	256
64	Rack equipment	P9Q37A	HPE G2 Basic 3.6kVA/(12) C13 WW PDU	1

65	Rack equipment	P9Q64A	HPE G2 Mtrd 3P 22kVA/C13-C19 Vt INTL PDU	2
66	Cable	AJ836A	HPE 5m Multi-mode OM3 LC/LC FC Cable	1
67	Cable	K2Q47A	HPE MPO to 4 x LC 15m Cable	6
68	Service	P1F64A	HPE Inside Unpack/Clean Up w/Lift XLSVC	1
69	Support	HT7A5A3	HPE 3Y Datacenter Care 24x7 Addon SVC	1
70	Support	HT7A5A3#W4A	HPE SY480 Gen10 Support	15
71	Support	HT7A5A3#WJN	HPE Synergy 1200 Frame Supp	2
72	Support	HT7A5A3#X0Z	HPE SY480 Exp Module Support	4
73	Support	HT7A5A3#Z1Q	HPE Synergy Composer2 Support	2
74	Support	HT7A5A3#Z1R	HPE Synergy VC SE 100Gb F32 Module Supp	2
75	Support	HT7A5A3#Z1S	HPE Synergy 50Gb IC Link Module Support	2
76	Support	HA124A1	HPE Technical Installation Startup SVC	1
77	Support	HA124A1#5ZQ	HPE Synergy Additional Frame Startup SVC	1
78	Support	HA124A1#5ZM	HPE Synergy First Frame Startup SVC	1

**C.32 HPE ProLiant DL380 Gen10 8SFF**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Server	868703-B21	HPE ProLiant DL380 Gen10 8SFF	1
2.	Service	868703-B21 B19	HPE DL380 Gen10 8SFF CTO Server	1
3.	CPU	826852-L21	HPE DL380 Gen10 Intel Xeon-Silver 4116 (2.1GHz/12-core/85W) FIO Processor Kit	1
4.	Memory	835955-B21	HPE 16GB (1x16GB) Dual Rank x8 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	2
5.	Service	835955-B21 0D1	Factory Integrated	2

6.	Hard Drive	P18422-B21	HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Multi Vendor SSD	2
7.	Service	P18422-B21 0D1	Factory Integrated	2
8.	Power Supply	865408-B21	HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	2
9.	Service	865408-B21 0D1	Factory Integrated	2
10.	Install Rail Kit	733660-B21	HPE 2U Small Form Factor Easy Install Rail Kit	1
11.	Service	733660-B21 0D1	Factory Integrated	1
12.	Support	H7J33A3	HPE 3Y Foundation Care NBD wDMR SVC	1
13.	Support	H7J33A3 WAH	HPE DL38x Gen10 Support	1

**C.33 HPE DL360 Gen10 Intel Xeon-Gold 6136 (3.0GHz/12- core/150W) Processor Kit**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	CPU	860691-L21	HPE DL360 Gen10 Intel Xeon- Gold 6136 (3.0GHz/12-core/150W) FIO Processor Kit	1
2.	Service	867959-B21 B19	HPE DL360 Gen10 8SFF CTO Server	1
3.	Server	867959-B21	HPE ProLiant DL360 Gen10 8SFF Configure-to-order Server	1
4.	CPU	860691-B21	HPE DL360 Gen10 Intel Xeon- Gold 6136 (3.0GHz/12-core/150W) Processor Kit	1
5.	Service	860691-B21 0D1	Factory Integrated	1
6.	Memory	815100-B21	HPE 32GB (1x32GB) Dual Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	8
7.	Service	815100-B21 0D1	Factory Integrated	8
8.	Adapter	867966-B21	HPE DL360 Gen10 2SFF SAS/SATA Backplane Kit	1
9.	Service	867966-B21 0D1	Factory Integrated	1
10.	SSD	P04525-B21	HPE 400GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	2
11.	Service	P04525-B21 0D1	Factory Integrated	2

12.Hard disk	832514-B21	HPE 1TB SAS 12G Midline 7.2K SFF (2.5in) SC 1yr Wty Digitally Signed Firmware HDD	8
13.Service	832514-B21 0D1	Factory Integrated	8
14.Backup battery	P01366-B21	HPE 96W Smart Storage Battery (up to 20 Devices) with 145mm Cable Kit	1
15.Service	P01366-B21 0D1	Factory Integrated	1
16.Controller	804338-B21	HPE Smart Array P816i-a SR Gen10 (16 Internal Lanes/4GB Cache/SmartCache) 12G SAS Modular Controller	1
17.Service	804338-B21 0D1	Factory Integrated	1
18.Network Adapter	727054-B21	HPE Ethernet 10Gb 2- port 562FLR-SFP+ Adapter	1
19.Service	727054-B21 0D1	Factory Integrated	1
20.Power Supply	865414-B21	HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	2
21.Service	865414-B21 0D1	Factory Integrated	2
22.Memory	726116-B21	HPE 8GB microSD Flash Memory Card	1
23.Service	726116-B21 0D1	Factory Integrated	1
24.Rack equipment	734811-B21	HPE 1U Cable Management Arm for Rail Kit	1
25.Service	734811-B21 0D1	Factory Integrated	1
26.Rack equipment	874543-B21	HPE 1U Gen10 SFF Easy Install Rail Kit	1
27.Service	874543-B21 0D1	Factory Integrated	1
28.Support	H7J33A3	HPE 3Y Foundation Care NBD wDMR SVC	1
29.Support	H7J33A3 WAG	HPE DL360 Gen10 Support	1

### C.34 HPE ProLiant BL460c Gen10 v6 10/20Gb FlexibleLOM Configure-to-order Blade Server

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Server	P09524-B21	HPE ProLiant BL460c Gen10 v6 10/20Gb FlexibleLOM Configure- to- order Blade Server	1
2.	CPU	P06819-L21	HPE BL460c Gen10 Intel Xeon-Gold 6242 (2.8GHz/16-core/150W) FIO Processor Kit	1
3.	CPU	P06819-B21	HPE BL460c Gen10 Intel Xeon-Gold 6242 (2.8GHz/16-core/150W) Processor Kit	1
4.	Service	P06819-B21 0D1	Factory Integrated	1

5.	Memory	P00924-B21	HPE 32GB (1x32GB) Dual Rank x4 DDR4- 2933 CAS-21-21-21 Registered Smart Memory Kit	12
6.	Service	P00924-B21 0D1	Factory Integrated	12
7.	Hard Disk	872475-B21	HPE 300GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	2
8.	Service	872475-B21 0D1	Factory Integrated	2
9.	Backup battery	P01363-B21	HPE 12W Smart Storage Battery (up to 3 Devices) for BladeSystem Server	1
10.	Service	P01363-B21 0D1	Factory Integrated	1
11.	Controller	804367-B21	HPE Smart Array P204i-b SR Gen10 (4 Internal Lanes/1GB Cache) 12G SAS Modular Controller	1
12.	Service	804367-B21 0D1	Factory Integrated	1
13.	Controller	766490-B21	HPE FlexFabric 10Gb 2- port 536FLB Adapter	1
14.	Service	766490-B21 0D1	Factory Integrated	1
15.	Controller	718203-B21	HPE LPe1605 16Gb Fibre Channel HBA for BladeSystem c-Class	1
16.	Service	718203-B21 0D1	Factory Integrated	1
17.	Service	339778-B21	HPE RAID 1 Drive 1 FIO Setting	1
18.	License	BD505A	HPE iLO Advanced 1-server License with 3yr Support on iLO Licensed Features	1
19.	Service	BD505A 0D1	Factory Integrated	1
20.	Support	H7J33A3	HPE 3Y Foundation Care NBD wDMR SVC	1
21.	Support	H7J33A3 W4C	HPE BL460c Gen10 Support	1
22.	Service	AC111A	HPE ProLiant Door/dock Small Logistic Service	1

**C.35 HPE ProLiant DL360 Gen10 8SFF Configure-to-order Server**

#	Item	Part Number	Specification	Quantity of sub- elements needed for full Configuration <sup>1</sup>
1.	Server	867959-B21	HPE ProLiant DL360 Gen10 8SFF Configure-to-order Server	1
2.	Service	867959-B21 B19	HPE DL360 Gen10 8SFF CTO Server	1



3.	CPU	P02586-L21	HPE DL360 Gen10 Intel Xeon-Gold 5215 (2.5GHz/10-core/85W) FIO Processor Kit	1
4.	CPU	P02586-B21	HPE DL360 Gen10 Intel Xeon-Gold 5215 (2.5GHz/10-core/85W) Processor Kit	1
5.	Service	P02586-B21 0D1	Factory Integrated	1
6.	Memory	P00924-B21	HPE 32GB (1x32GB) Dual Rank x4 DDR4- 2933 CAS-21-21-21 Registered Smart Memory Kit	4
7.	Service	P00924-B21 0D1	Factory Integrated	4
8.	SSD	P04478-B21	HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	2
9.	Service	P04478-B21 0D1	Factory Integrated	2
10.	Controller	804394-B21	HPE Smart Array E208i-p SR Gen10 (8 Internal Lanes/No Cache) 12G SAS PCIe Plug-in Controller	1
11.	Service	804394-B21 0D1	Factory Integrated	1
12.	Backup battery	P01366-B21	HPE 96W Smart Storage Battery (up to 20 Devices) with 145mm Cable Kit	1
13.	Service	P01366-B21 0D1	Factory Integrated	1
14.	Controller	804331-B21	HPE Smart Array P408i-a SR Gen10 (8 Internal Lanes/2GB Cache) 12G SAS Modular Controller	1
15.	Service	804331-B21 0D1	Factory Integrated	1
16.	Power Supply	865408-B21	HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	2
17.	Service	865408-B21 0D1	Factory Integrated	2
18.	License	BD505A	HPE iLO Advanced 1- server License with 3yr Support on iLO Licensed Features	1
19.	Service	BD505A 0D1	Factory Integrated	1
20.	Rack equipment	734811-B21	HPE 1U Cable Management Arm for Rail Kit	1
21.	Service	734811-B21 0D1	Factory Integrated	1
22.	Rack equipment	874543-B21	HPE 1U Gen10 SFF Easy Install Rail Kit	1
23.	Service	874543-B21 0D1	Factory Integrated	1

24.	Support	H7J33A3	HPE 3Y Foundation Care NBD wDMR SVC	1
25.	Support	H7J33A3 WAG	HPE DL360 Gen10 Support	1
26.	Service	AC111A	HPE ProLiant Door/dock Small Logistic Service	1

**C.36 HPE 12TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Hard Disk	881779-B21	HPE 12TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD	12

**C.37 SPARC T8-1 SERVER MODEL FAMILY**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	7113714	SPARC T8-1 SERVER BASE WITH 1 SPARC M8 32-CORE 5.0 GHZ PROCESSOR (FOR FACTORY INSTALLATION)	1
2.	Type	7114454	One 32 GB DDR4-2400 registered DIMM (for factory installation)	8
3.	Type	7111107	ONE 1.2 TB 10000 RPM 2.5-INCH SAS-3 HDD WITH MARLIN BRACKET (FOR FACTORY INSTALLATION)	6
4.	Type	7115078	ONE 800 GB 2.5-INCH SAS SSD WITH MARLIN BRACKET (FOR FACTORY INSTALLATION)	2
5.	Type	1109A-Z	SUN DUAL 10GBE SFP+ PCIE LOW PROFILE ADAPTER	1
6.	Type	2129A	SUN 10GBPS DUAL RATE SFP+ SR	2
7.	Type	333A-25-10-EURO	POWER CORD EUROPE 2.5 METERS CEE7/VII PLUG C13 CONNECTOR 10 A (FOR FACTORY INSTALLATION)	2

8.	Type	7114063	ORACLE SOLARIS WITH FALLBACK- BOOT IMAGE AND ORACLE VM SERVER FOR SPARC PREINSTALL (FOR FACTORY INSTALLATION)	1
9.	Type	7114774	TWO MEMORY EXPANSION BOARDS (FOR FACTORY INSTALLATION)	1
10.	Type	B59411	HARDWARE FREIGHT FEE	1
11.	Type		Oracle Premier Support For Systems for 1 Year with data and device retention	1

**C.38 SPARC T8-1 SERVER MODEL FAMILY #2**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	7113714	SPARC T8-1 SERVER BASE WITH 1 SPARC M8 32-CORE 5.0 GHZ PROCESSOR (FOR FACTORY INSTALLATION)	1
2.	Type	7114455	ONE 64 GB DDR4-2400 REGISTERED DIMM (FOR FACTORY INSTALLATION)	16
3.	Type	7111107	ONE 1.2 TB 10000 RPM 2.5-INCH SAS-3 HDD WITH MARLIN BRACKET (FOR FACTORY INSTALLATION)	6
4.	Type	7115078	ONE 800 GB 2.5-INCH SAS SSD WITH MARLIN BRACKET (FOR FACTORY INSTALLATION)	2
5.	Type	1109A-Z	SUN DUAL 10GBE SFP+ PCIE LOW PROFILE ADAPTER	1
6.	Type	2129A	SUN 10GBPS DUAL RATE SFP+ SR	2
7.	Type	333A-25-10-EURO	POWER CORD EUROPE 2.5 METERS CEE7/VII PLUG C13 CONNECTOR 10 A (FOR FACTORY INSTALLATION)	2
8.	Type	7114063	ORACLE SOLARIS WITH FALLBACK- BOOT IMAGE AND ORACLE VM SERVER FOR SPARC PREINSTALL (FOR FACTORY INSTALLATION)	1
9.	Type	7114774	TWO MEMORY EXPANSION BOARDS (FOR FACTORY INSTALLATION)	1
10.	Type	B59411	HARDWARE FREIGHT FEE	1
11.	Type		Oracle Premier Support For Systems for 1 Year with data and device retention	1

**C.39 SPARC S7-2 SERVER MODEL FAMILY**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	7114629	SPARC S7-2 SERVER BASE WITH 1 SPARC S7 8-CORE 4.27 GHZ PROCESSOR (FOR FACTORY INSTALLATION)	1
2.	Type	7119478	ONE 16 GB DDR4-2400 SINGLE- RANK REGISTERED DIMM (FOR FACTORY INSTALLATION)	4
3.	Type	7111107	ONE 1.2 TB 10000 RPM 2.5-INCH SAS-3 HDD WITH MARLIN BRACKET (FOR FACTORY INSTALLATION)	2
4.	Type	6331A-N	2.5-INCH HDD FILLER PANEL (FOR FACTORY INSTALLATION)	6
5.	Type	333A-25-10-EURO	POWER CORD EUROPE 2.5 METERS CEE7/VII PLUG C13 CONNECTOR 10 A (FOR FACTORY INSTALLATION)	2
6.	Type	7114240	ORACLE SOLARIS WITH FALLBACK- BOOT IMAGE AND ORACLE VM SERVER FOR SPARC PREINSTALL (FOR FACTORY INSTALLATION)	1
7.	Type	7102748	PCIE FILLER PANEL (FOR FACTORY INSTALLATION)	3
8.	Type	7113249	ORACLE STORAGE 12GB SAS PCIE HBA INTERNAL (FOR FACTORY INSTALLATION)	1
9.	Type	7114234	CABLE MANAGEMENT ARM (FOR FACTORY INSTALLATION)	1
	Type	7105591	POWER CORD EUROPE 3 METERS CEE7/VII PLUG C13 CONNECTOR 5 A	1
11.	Type	B59411	HARDWARE FREIGHT FEE	1
12.	Type	7111911	EXTERNAL USB DVD DRIVE WITH AC ADAPTER	1
13.	Type	B59411	HARDWARE FREIGHT FEE	1
14.	Type		Oracle Premier Support for Systems for 1 year with data and device retention	1

**C.40 NETRA SPARC S7-2 MODEL FAMILY #2**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	7113673	NETRA SPARC S7-2 AC BASE WITH 1 SPARC S7 8 CORE 4.27 GHZ PROCESSOR (FOR FACTORY INSTALLATION)	1
2.	Type	333A-25-10-EURO	POWER CORD EUROPE 2.5 METERS CEE7/VII PLUG C13 CONNECTOR 10 A (FOR FACTORY INSTALLATION)	2
3.	Type	7120401	ONE 16 GB DDR4-2400 SINGLE- RANK REGISTERED DIMM (FOR FACTORY INSTALLATION)	4
4.	Type	7115078	ONE 800 GB 2.5-INCH SAS SSD WITH MARLIN BRACKET (FOR FACTORY INSTALLATION)	2
5.	Type	1109A-Z	SUN DUAL 10GBE SFP+ PCIE LOW PROFILE ADAPTER	1
6.	Type	2129A	SUN 10GBPS DUAL RATE SFP+ SR	2
7.	Type	6331A-N	2.5-INCH HDD FILLER PANEL (FOR FACTORY INSTALLATION)	6
8.	Type	7114063	ORACLE SOLARIS WITH FALLBACK- BOOT IMAGE AND ORACLE VM SERVER FOR SPARC PREINSTALL (FOR FACTORY INSTALLATION)	1
9.	Type	7111043	MEMORY FILLER PANELS (FOR FACTORY INSTALLATION)	4
10.	Type	7111049	19-INCH 4-POST SLIDE MOUNT KIT AND CABLE MANAGEMENT ARM (FOR FACTORY INSTALLATION)	1
11.	Type	7111911	EXTERNAL USB DVD DRIVE WITH AC ADAPTER	1
12.	Type	B59411	HARDWARE FREIGHT FEE	1
13.	Type	7105591	POWER CORD EUROPE 3 METERS CEE7/VII PLUG C13 CONNECTOR 5 A	1
14.	Type		Oracle Premier Support for Systems for 1 year with data and device retention - CSI to be determined with TO	1

**C.41 HPE ProLiant DL360 Gen10 8SFF**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	867959-B21	HPE ProLiant DL360 Gen10 8SFF Configure-to-order Server	1
2.	Type	867959-B21 B19	HPE DL360 Gen10 8SFF CTO Server	1
3.	Type	874449-L21	HPE DL360 Gen10 Intel Xeon-Silver 4116 (2.1GHz/12-core/85W) FIO Processor Kit	1
4.	Type	874449-B21	HPE DL360 Gen10 Intel Xeon-Silver 4116 (2.1GHz/12-core/85W) Processor Kit	1
5.	Type	874449-B21 OD1	Factory Integrated	1
6.	Type	815101-B21	HPE 64GB (1x64GB) Quad Rank x4 DDR4-2666 CAS-19-19-19 Load Reduced Smart Memory Kit	2
7.	Type	815101-B21 OD1	Factory Integrated	2
8.	Type	P04560-B21	HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	2
9.	Type	P04560-B21 OD1	Factory Integrated	2
10.	Type	P01366-B21	HPE 96W Smart Storage Battery (up to 20 Devices) with 145mm Cable Kit	1
11.	Type	P01366-B21 OD1	Factory Integrated	1
12.	Type	804326-B21	HPE Smart Array E208i-a SR Gen10 (8 Internal Lanes/No Cache) 12G SAS Modular Controller	1
13.	Type	804326-B21 OD1	Factory Integrated	1
14.	Type	865408-B21	HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	2
15.	Type	865408-B21 OD1	Factory Integrated	2
16.	Type	874543-B21	HPE 1U Gen10 SFF Easy Install Rail Kit	1
17.	Type	874543-B21 OD1	Factory Integrated	1
18.	Type	H7J33A3	HPE 3Y Foundation Care NBD wDMR SVC	1
19.	Type	H7J33A3 WAG	HPE DL360 Gen10 Support	1

**C.42 HPE ProLiant DL380 Gen10 8SFF**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	868703-B21	HPE ProLiant DL380 Gen10 8SFF Configure-to-order Server	1
2.	Type	868703-B21 B19	HPE DL380 Gen10 8SFF CTO Server	1
3.	Type	826852-L21	HPE DL380 Gen10 Intel Xeon-Silver 4116 (2.1GHz/12-core/85W) FIO Processor Kit	1
4.	Type	835955-B21	HPE 16GB (1x16GB) Dual Rank x8 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	2
5.	Type	835955-B21 0D1	Factory Integrated	2
6.	Type	P04560-B21	HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	2
7.	Type	P04560-B21 0D1	Factory Integrated	2
8.	Type	865408-B21	HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	2
9.	Type	865408-B21 0D1	Factory Integrated	2
10.	Type	733660-B21	HPE 2U Small Form Factor Easy Install Rail Kit	1
11.	Type	733660-B21 0D1	Factory Integrated	1
12.	Type	H7J33A3	HPE 3Y Foundation Care NBD wDMR SVC	1
13.	Type	H7J33A3 WAH	HPE DL380 Gen10 Support	1

**C.43 HPE Apollo r2800 Gen10 24 SFF Flex**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	867159-B21	HPE Apollo r2800 Gen10 24 SFF Flexible Configure-to-order Chassis	1
2.	Type	867159-B21 B19	HPE Apollo r2800 24SFF-Flex CTO Chassis	1
3.	Type	874797-B21	HPE r2800 Gen10 24SFF BP w/EXP FIO Kit	1

4.	Type	865414-B21	HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	2
5.	Type	865414-B21 OD1	Factory Integrated	2
6.	Type	880186-B21	HPE r2x00 Gen10 Power Supply Unit Enablement Kit	1
7.	Type	880186-B21 OD1	Factory Integrated	1
8.	Type	874308-B21	HPE r2x00 Gen10 Redundant Fan Module Kit	1
9.	Type	874308-B21 OD1	Factory Integrated	1
10.	Type	874309-B21	HPE Apollo 2000 Gen10 Server Node Blank Kit	2
11.	Type	874309-B21 OD1	Factory Integrated	2
12.	Type	822731-B21	HPE 2U Shelf-Mount Adjustable Rail Kit	1
13.	Type	822731-B21 OD1	Factory Integrated	1
14.	Type	867055-B21	HPE ProLiant XL170r Gen10 1U Node Configure-to-order Server	2
15.	Type	867055-B21 OD1	Factory Integrated	2
16.	Type	867055-B21 B19	HPE ProLiant XL170r Gen10 CTO Svr	2
17.	Type	879577-L21	HPE XL1x0r Gen10 Intel Xeon-Silver 4116 (2.1GHz/12-core/85W) FIO Processor Kit	2
18.	Type	879577-B21	HPE XL1x0r Gen10 Intel Xeon-Silver 4116 (2.1GHz/12-core/85W) Processor Kit	2
19.	Type	879577-B21 OD1	Factory Integrated	2
20.	Type	815100-H21	HPE 32GB (1x32GB) Dual Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	16
21.	Type	815100-H21 OD1	Factory Integrated	16
22.	Type	870753-H21	HPE 300GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	4
23.	Type	870753-H21 OD1	Factory Integrated	4
24.	Type	P09092-H21	HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	4
25.	Type	P09092-H21 OD1	Factory Integrated	4
26.	Type	874296-B21	HPE XL1x0r Gen10 Left Low Profile Riser Kit	2



27.	Type	874296-B21 0D1	Factory Integrated	2
28.	Type	804394-B21	HPE Smart Array E208i-p SR Gen10 (8 Internal Lanes/No Cache) 12G SAS PCIe Plug-in Controller	2
29.	Type	804394-B21 0D1	Factory Integrated	2
30.	Type	874302-B21	HPE XL170r Gen10 P2 Low Profile Riser Kit	2
31.	Type	874302-B21 0D1	Factory Integrated	2
32.	Type	P9D94A	HPE StoreFabric SN1100Q 16Gb Dual Port Fibre Channel Host Bus Adapter	2
33.	Type	P9D94A 0D1	Factory Integrated	2
34.	Type	866467-B21	HPE Ethernet 10Gb 2-port 568FLR- SFP+ Media Module Adapter	2
35.	Type	866467-B21 0D1	Factory Integrated	2
36.	Type	512485-B21	HPE iLO Advanced 1-server License with 1yr Support on iLO Licensed Features	2
37.	Type	512485-B21 0D1	Factory Integrated	2
38.	Type	874855-B21	HPE XL170r Right E208ip/P408ip Cable Kit	2
39.	Type	874855-B21 0D1	Factory Integrated	2
40.	Type	P03835-B21	HPE r2x00 G10 Drv Bay Zoning Node2 FIO	8
41.	Type	Q9V60AAE	HPE Performance Cluster Manager 1 Node 3yr 24x7 Support Perpetual E-LTU	2
42.	Type	H1K91A3	HPE 3Y Proactive Care NBD wDMR SVC	1
43.	Type	H1K91A3 7X4	HPE iLO AdvPack NonBL Support	2
44.	Type	H1K91A3 ZBK	HPE ProLiant xl170r Gen10 Support	2
45.	Type	H1K91A3 WGN	HPE Perf Cluster Mgr 3y24x7 PerpLTU Supp	2
46.	Type	H1K91A3 ZBJ	HPE Apollo 2000 Gen10 Chassis Support	1

**C.44 RAD Multiplexer**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	MP-2100/230/R/2UTP	MP-2100/230/R/2UTP	10
2.	Type	MP-2100M-CL.2/UTP	MP-2100M-CL.2/UTP	20
3.	Type	MP-2100M/HS/ETH/SW/UTP/4	MP-2100M/HS/ETH/SW/UTP/4	10

4.	Type	MP-2100M-HS-RN/HDLC Low Speed serial card	MP-2100M-HS-RN/HDLC Low Speed serial card	15
5.	Type	MP-2100M-HS-RN/V110 4-port low-speed data module	MP-2100M-HS-RN/V110 4-port low-speed data module	1
6.	Type	MP-2100M-ML-1E1 Single-port copper interface E1 main link module	MP-2100M-ML-1E1 Single-port copper interface E1 main link module	10
7.	Type	MP-2100M-ML-2E1 2-port copper interface E1 main link module	MP-2100M-ML-2E1 2-port copper interface E1 main link module	1
8.	Type	MP-2100M-ML-8E1 8-port E1 Main Link module	MP-2100M-ML-8E1 8-port E1 Main Link module	1
9.	Type	MP-2100M-ML-IP/UTP TDMoIP Main Link Module	MP-2100M-ML-IP/UTP TDMoIP Main Link Module	15
10.	Type	MP-2100M-VC-4A/FXS ADPCM voice module	MP-2100M-VC-4A/FXS ADPCM voice module	15
11.	Type	MP-2100M-VC-8/FXS/RJ 8-port PCM voice module	MP-2100M-VC-8/FXS/RJ 8-port PCM voice module	1
12.	Type	MP-2100M-VC-8A/FXO/RJ 8-port ADPCM voice module	MP-2100M-VC-8A/FXO/RJ 8-port ADPCM voice module	1
13.	Type	MP-4100-2/230R/GBEAUTP R	MP-4100-2/230R/GBEAUTPR	1
14.	Type	MP-4100M-8E1/3XUTP 8-port E1 module	MP-4100M-8E1/3XUTP 8-port E1 module	1
15.	Type	RINGER-2100R/AC	RINGER-2100R/AC	15
16.	Type	CBL-HSR/F/3M	CBL-HSR/F/3M	5

**C.45 Sunhillo Ventnor, 8-Port, Single Power Supply, NATO Custom Includes Additional software licence and serial cables**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	070-08-VNT-C01	Sunhillo Ventnor, 8-Port, Single Power Supply, NATO Custom Includes Additional software licence and serial cables	1

**C.46 Configuration DataON K2N-108 2-Node ~10TB - SQL Servers**

#	Type	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	HCI-108	DataON HCI-108 SFF 10GbE 1100W Node 1U	1
2.	Type	MUST	Management Tool DataON MUST™	1
3.	Type	DataON-Warranty-3	3 Years DataON™ Advanced Replacement Warranty & Support	1
4.	Type	CPU-XEON-5217	Gold 5217 8C 3.0GHz-11MB 115W CPU	2
5.	Type	MMD4-32G-2933	32GB 2Rx4 PC4-2933V-R DIMM	4
6.	Type	SSDSCKKB480G801	480GB D3-S4510 6G SATA 3D2 TLC M.2 Boot Drive	2
7.	Type	LSI9300-8I	LSI 9300-8i 8p Internal 12G SAS PCIe HBA	1
8.	Type	MCX4121A-ACAT	25GbE 2-Port PCI-e ConnectX-4 Lx RDMA Card	1
9.	Type	ES6AGN030	Patch Cat.6A- Cat7 10G S/FTP PIMF green 3m	1
10.	Type	ES6AGN075	Patch Cat.6A- Cat7 10G S/FTP PIMF green 7.5m	1
11.	Type	MCP2M00-A003	LinkX™ Passive Copper cable, ETH, up to 25Gb/s, SFP28, 3M	1
12.	Type	SSDPE2KE016T801	1.6TB DC P4610 NVMe SFF SSD	8

**C.47 Configuration Domain Controller**

#	Type	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	867959-B21	HPE ProLiant DL360 Gen10 8SFF Configure- to-order Server	1
2.	Type	867959-B21 B19	HPE DL360 Gen10 8SFF CTO Server	1
3.	Type	P02571-L21	HPE DL360 Gen10 Intel Xeon-Silver 4208 (2.1GHz/8-core/85W) FIO Processor Kit	1
4.	Type	P00922-B21	HPE 16GB (1x16GB) Dual Rank x8 DDR4-2933 CAS- 21-21-21 Registered Smart Memory Kit	1
5.	Type	P00922-B21 0D1	Factory Integrated	1
6.	Type	872475-B21	HPE 300GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	2

7.	Type	872475-B21 0D1	Factory Integrated	2
8.	Type	804326-B21	HPE Smart Array E208i-a SR Gen10 (8 Internal Lanes/No Cache) 12G SAS Modular Controller	1
9.	Type	804326-B21 0D1	Factory Integrated	1
10.	Type	865408-B21	HPE 500W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	2
11.	Type	865408-B21 0D1	Factory Integrated	2
12.	Type	874543-B21	HPE 1U Gen10 SFF Easy Install Rail Kit	1
13.	Type	874543-B21 0D1	Factory Integrated	1
14.	Type	H7J33A3	HPE 3Y Foundation Care NBD wDMR SVC	1
15.	Type	H7J33A3 WAG	HPE DL360 Gen10 Support	1
16.	Type	ES6AGN030	Patch Cat.6A- Cat7 10G S/FTP PIMF green 3m	1
17.	Type	ES6AGN075	Patch Cat.6A- Cat7 10G S/FTP PIMF green 7,5m	1

**C.48 Configuration- DataON K3N-208 3-Node ~6.3TB - S2D Cluster (DMZ Servers & Storage)**

#		Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	HCI-208	DataON HCI-208 SFF 10GbE 1300W Node 2U	1
2.	Type	MUST	Management Tool DataON MUST™	1
3.	Type	DataON-Warranty-3	3 Years DataON™ Advanced Replacement Warranty & Support	1
4.	Type	CPU-XEON-4208	Silver 4208 8C 2.1GHz- 11MB 85W CPU	2
5.	Type	MMD4-32G-2933	32GB 2Rx4 PC4-2933V-R DIMM	8
6.	Type	SSDSCKKB480G801	480GB D3-S4510 6G SATA 3D2 TLC M.2 Boot Drive	2
7.	Type	LSI 9300-8i	DataOn 9300-8i PCI-e 3.0 8-Port Internal 12G SAS HBA	1
8.	Type	SSDPE2KX010T801	1.0TB DC P4510 NVMe SFF SSD	8
9.	Type	MCX4121A-ACAT	25GbE 2-Port PCI-e ConnectX-4 Lx RDMA Card	3
10.	Type	ES6AGN030	Patch Cat.6A- Cat7 10G S/FTP PIMF green 3m	1
11.	Type	ES6AGN075	Patch Cat.6A- Cat7 10G S/FTP PIMF green 7,5m	1

12	Type	MCP2M00-A003	LinkX™ Passive Copper cable, ETH, up to 25Gb/s, SFP28, 3M	1
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**C.49 Configuration-DataON DCS-5212i S2D Cluster Backup (DMZ Servers & Storage)**

#		Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	DCS-5212iBase	DCS-5212i Base 12G SAS LFF HDD Storage Server 2U	1
2.	Type	MUST	Management Tool DataON MUST™	1
3.	Type	DataON-Warranty-3	3 Years DataON™ Advanced Replacement Warranty & Support	1
4.	Type	CPU-XEON-4208	Silver 4208 8C 2.1GHz-11MB 85W CPU	2
5.	Type	MMD4-32G-2933	32GB 2Rx4 PC4-2933V-R DIMM	2
6.	Type	SSDSCKKB480G801	480GB D3-S4510 6G SATA 3D2 TLC M.2 Boot Drive	2
7.	Type	LSI 9361-8i	LSI 9361-8i 8p Int 12G SATA/SAS PCI-e 3.0 8-port	1
8.	Type	LSI CVM02	CacheVault Kit For MegaRAID	1
9.	Type	0F29530	12TB 7K DC HC512 12G SAS LFF HDD	4
10.	Type	MCX4121A-ACAT	25GbE 2-Port PCI-e ConnectX-4 Lx RDMA Card	2
11.	Type	ES6AGN030	Patch Cat.6A- Cat7 10G S/FTP PIMF green 3m	1
12.	Type	ES6AGN075	Patch Cat.6A- Cat7 10G S/FTP PIMF green 7,5m	1
13.	Type	QSFP-4X10G-AOC3M	40GBASE Active Optical QSFP to 4SFP breakout Cable, 3m	2
14.	Type	QSFP-4X10G-AOC7M	40GBASE Active Optical QSFP to 4SFP breakout Cable, 7m	2

**C.50 HP ProLiant DL380 (Gen10) Entry SATA SERVER [MASE Server]**

#		Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	868703-B21	HPE ProLiant DL380 Gen10 8SFF Configure-to-order Server	1

2.	Type	868703-B21 B19	HPE DL380 Gen10 8SFF CTO Server	1
3.	Type	P02500-L21	HPE DL380 Gen10 Intel Xeon-Gold 5222 (3.8GHz/4-core/105W) FIO Processor Kit	1
4.	Type	P00922-B21	HPE 16GB (1x16GB) Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	1
5.	Type	P00922-B21 0D1	Factory Integrated	1
6.	Type	826708-B21	HPE DL38X Gen10 Universal Media Bay Kit	1
7.	Type	826708-B21 0D1	Factory Integrated	1
8.	Type	765455-B21	HPE 2TB SATA 6G Midline 7.2K SFF (2.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD	2
9.	Type	765455-B21 0D1	Factory Integrated	2
10.	Type	726537-B21	HPE 9.5mm SATA DVD-RW Optical Drive	1
11.	Type	726537-B21 0D1	Factory Integrated	1
12.	Type	865414-B21	HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit	2
13.	Type	865414-B21 0D1	Factory Integrated	2
14.	Type	733664-B21	HPE 2U Cable Management Arm for Easy Install Rail Kit	1
15.	Type	733664-B21 0D1	Factory Integrated	1
16.	Type	733660-B21	HPE 2U Small Form Factor Easy Install Rail Kit	1
17.	Type	733660-B21 0D1	Factory Integrated	1
18.	Type	631341-B21	HPE USB US Keyboard/Mouse Kit	1
19.	Type	H7J33A3	HPE 3Y Foundation Care NBD wDMR SVC	1
20.	Type	H7J33A3 WAH	HPE DL38x Gen10 Support	1

**C.51 MICE, MASE and CSI Servers, JALFs, TSSs, FP Firewalls Monitors**

#		Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
C.51.1	Type	1FH49AA	HP EliteDisplay E243i 60,96 cm (24") Business Monitor -Europe - English localization	166
C.51.2	Type	HAMA-54563	Mini DP to DP - HAMA 54563 MINI DISPLAYPORT	166
C.51.3	Type	1FH49AA	HP EliteDisplay E243i 60,96 cm (24") Business Monitor -Europe - English localization	24

C.51.4	Type	CS74U	ATEN 4-Port USB VGA/Audio KVM Switch	14
C.51.5	Type	CE100	ATEN USB VGA Cat 5 Mini KVM Extender	28

**C.52 Thomas Krenn RI1102H SERVER [CSI Server] -16- EA**

#		Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	RI1102H	Thomas Krenn RI1102H SERVER [CSI Server]	1
2.	Type	RI1102H	HDDs for Thomas Krenn RI1102H SERVER [CSI Server]	2
3.	Type	RI1102H	DVD Burner for Thomas Krenn RI1102H SERVER [CSI Server]	1
4.	Type	RI1102H	Microsoft Configurator (V1.0) for Thomas Krenn RI1102H SERVER [CSI Server]	1
5.	Type	RI1102H	Extendable Mounting Rails for Thomas Krenn RI1102H SERVER [CSI Server]	1
6.	Type	RI1102H	Network Card for Thomas Krenn RI1102H SERVER [CSI Server]	1

**C.53 Windows based JREAP Router**

#		Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Type	RI1102H	1U Intel Single-CPU RI1102H Server (V3.2) Thomas Krenn RI1102H SERVER [JREAP Router] incl. Keep Your Drive Service (KYD): 36 months	1
2.	Type	RI1102H	Rack Assembly Rails for Thomas Krenn RI1102H SERVER [JREAP Router]	1
3.	Type	RI1102H	Network Card for Thomas Krenn RI1102H SERVER [JREAP Router]	1
4.	Type	RI1102H	HDDs for Thomas Krenn RI1102H SERVER [JREAP Router]	1
5.	Type	RI1102H	Microsoft Configurator (V1.0) for Thomas Krenn RI1102H SERVER [JREAP Router]	1

**C.54 PowerEdge R940 Server**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Base	[210-AKWP]	PowerEdge R940 Server	1
2.	Chassis Configuration	[321-BCMQ]	2.5" Chassis with up to 24 Hard Drives	1
3.	Trusted Platform Module	[461-AAEM]	Trusted Platform Module 2.0	1
4.	Processor	[338-BTSW]	Intel Xeon Gold 6226 2.7G, 12C/24T, 10.4GT/s, 19.25M Cache, Turbo, HT (125W) DDR4-2933	2
5.	Additional Processor	[338-BTSW] [379-BDNR]	Intel Xeon Gold 6226 2.7G, 12C/24T, 10.4GT/s, 19.25M Cache, Turbo, HT (125W) DDR4-2933	2
6.	Processor Thermal Configuration	[379-BCQQ]	CPU Heatsink	4
7.	Memory Configuration Type	[370-AAIP]	Performance Optimized	1
8.	Memory DIMM Type and Speed	[370-AEPP]	2933MT/s RDIMMs	1
9.	Memory Capacity	[370-AEQF]	16GB RDIMM, 2933MT/s, Dual Rank	4
10.	Operating System	[619-ABVR]	No Operating System	-
11.	OS Media Kits	[605-BBFN]	No Media Required	-
12.	RAID Configuration	[780-BCDS]	C7, Unconfigured RAID for HDDs or SSDs (Mixed Drive Types Allowed)	1
13.	RAID Controller	[405-AAMR]	PERC H730P RAID Controller, 2GB NV Cache, Adapter, Full Height	1
14.	Hard Drives	[400-ASGV]	900GB 15K RPM SAS 12Gbps 512n 2.5in Hot-plug Hard Drive	3
15.	BIOS and Advanced System Configuration Settings	[750-AABF]	Power Saving Dell Active Power Controller	1
16.	Advanced System Configurations	[800-BBDM]	UEFI BIOS Setting	1



17.	Power Supply	[450-AFMQ]	Dual, Hot-plug, Redundant Power Supply (1+1), 1600W, 250 Volt Power Cord Required for Use	1
18.	Power Cords	[450-AADY]	Rack Power Cord 2M (C13/C14 10A)	2
19.	Motherboard	[329-BEOP]	PowerEdge R940 MLK Motherboard	1
20.	Embedded Systems Management	[385-BBKT]	iDRAC9,Enterprise	1
21.	Network Daughter Card	[540-BBCB]	Intel i350 Quad Port 1GbE BASE- T, rNDC	1
22.	Additional Network Cards	[540-BBDD]	Intel®Ethernet I350 Quad Port 1Gb Server Adapter	1
23.	Fibre Channel Adapters	[406-BBDZ]	QLogic 2562, Dual Port 8Gb Optical Fibre Channel HBA	1
24.	Bezel	[350-BBJJ] [350-BBJQ]	PowerEdge R940 Bezel	1
25.	Quick Sync	[350-BBJG]	No Quick Sync	-
26.	Rack Rails	[770-BCGC] [770-BCGD]	ReadyRails™ Sliding Rails With Cable Management Arm	1
27.	ISDM and VFlash Card Reader	[385-BBLR]	VFlash Card Reader with 16GB Vflash SD card	1
28.	Password	[379-BCSG]	iDRAC Legacy Password	1
29.	Group Manager	[379-BCQY]	iDRAC Group Manager, Disabled	1
30.	System Documentation	[631-AACK]	No Systems Documentation, No OpenManage DVD Kit	-
31.	Regulatory	[389-DSYD]	PowerEdge R940 CE and BIS Marking, No CCC Marking	1
32.	SHIPPING	[343-BBPN]	PowerEdge R940 Shipping, EMEA2 v2	1
33.	Base warranty	[709-BBIZ]	Parts Only Warranty 12Months, 12 Month(s)	1
34.	Support Services	[865-BBLL] [865-BBLM]	ProSupport and Next Business Day Onsite Service, 36 Month(s)	1
35.	Services - Keep your Components	[711-BBBR]	Keep Your Hard Drive, 36 Month(s)	1
36.	Dell Services: Deployment Services	[683-19200]	Basic Deployment Dell Server R Series 1U/2U	1

**C.55 Dell EMC ME4012 Storage Array**

#	Item	Part Number	Specification	Quantity of sub-elements needed for full Configuration <sup>1</sup>
1.	Base	[210-AQIE]	Dell EMC ME4012 Storage Array	1
2.	Hard Drives	[400-ALOV]	4TB 7.2K RPM NLSAS 12Gbps 512n 3.5in Hot-plug Hard Drive	12
3.	Power Supply	[450-AHSQ]	Power Supply, 580W, Redundant, Flex	1
4.	Power Cords	[450-AAXU]	European Power Cord 220V	2
5.	Rack Rails	[770-BCVF]	Rack Rails 2U	1
6.	Bezel	[325-BDDO]	ME4 2U Bezel	1
7.	SHIPPING	[340-CKTK]	ME4012 Shipping EMEA 2	1
8.	Controller Cards	[403-BBXO]	12Gb SAS 8 Port Dual Controller	1
9.	Base warranty	[709-13780], [709-16910]	3Yr Parts Only Warranty	1
10.	Support Services	[865-83072]	3Yr ProSupport and Next Business Day On-Site Service	1
11.	Dell Services: Deployment Services	[683-11930]	No Installation Service Selected (Contact Sales rep for more details)	-
12.	Data Protection - Keep Your Hard Drive	[711-10107]	3Yr Data Protection - Keep Your Hard Drive	1