

REQUEST FOR PROPOSALS

Server Processing Procurement

RFP Number: 09230-417-034 **Issue Date:** 15 November 2023

Closing Date and Time: Proposals must be received no later than 2:00 PM

Newfoundland Time (NT) on November 28, 2023.



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1.0. INTRODUCTION

1.1. INTENT

The C-NLOPB is seeking Proposals for the supply and delivery of modern server processing equipment and all associated support equipment.

The intent of this RFP is to modernize the Information Technology infrastructure at the C-NLOPB. Throughout the development of this RFP significant effort has been completed to ensure compatibility with existing equipment investment, while at the same time limiting the variety of Proponent equipment to ensure IT efficiency and supportability is maintained. Two solutions have been identified which may be used, as outlined in APPENDIX "A" – SCOPE OF WORK. We are seeking quotes for both options, and invite interested Proponents to submit a Proposal for either or both qualified options.

More detail on the opportunity and requirements can be found within this RFP.

1.2. OVERVIEW

The C-NLOPB is responsible, on behalf of the Government of Canada and the Government of Newfoundland and Labrador, for the regulation of petroleum-related activity in the Canada-Newfoundland and Labrador Offshore Area.

The C-NLOPB's authority is derived from the legislation implementing the February 11, 1985 Atlantic Accord between the two governments. The Canada-Newfoundland and Labrador Atlantic Accord Implementation Act and the Canada-Newfoundland and Labrador Atlantic Accord Implementation Newfoundland and Labrador Act provide for joint management of the Canada-Newfoundland and Labrador Offshore Area.

Pursuant to the legislation above, the C-NLOPB regulates in the areas of offshore workplace health and safety, environmental protection, resource management and industrial benefits.

While funded by both the federal and provincial governments, the C-NLOPB operates as an independent entity with the powers of a corporation under the Canada Business Corporations Act, and is responsible for recovering its costs in regulating offshore petroleum activity from applicants and operators on behalf of both governments.

For additional information, visit the C-NLOPB's website at http://www.cnlopb.ca.

2.0. DEFINITIONS

2.1. In this RFP, the following definitions apply:



- (a) "Closing Date and Time" means the date and time as set out on the cover page of this RFP.
- (b) "C-NLOPB" means the Canada-Newfoundland and Labrador Offshore Petroleum Board.
- (c) "Contract" means the written agreement between the C-NLOPB and the successful Proponent to perform the Work which is contemplated by this RFP.
- (d) "Proponent" means a person or entity responding to this RFP with a Proposal.
- (e) "Proposal" means the Proponent's response to this RFP and includes any attachments.
- (f) "Request for Proposal" or "RFP" means this document, including any appendices and addenda.
- (g) "Work" means the Scope of Work attached as Appendix "A" of this RFP.
- 2.2 Headings are for convenience only and do not affect the meaning or interpretation of the sections.
- 2.3 Words in the singular include the plural and vice-versa.

3.0. AMENDMENT OR CANCELLATION

- 3.1. The C-NLOPB reserves the right to modify the terms of this RFP at any time prior to the Closing Date and Time in its sole discretion. It is the responsibility of the Proponent to monitor the C-NLOPB's website (www.cnlopb.ca) under the heading What's New for any modification to this RFP issued up to, and including, the Closing Date and Time. The C-NLOPB may extend the Closing Date and Time in the event it issues any amendment or modification.
- 3.2. This RFP may be cancelled in whole or in part at any time by the C-NLOPB in its sole discretion. Any such cancellation shall be without penalty or cost to the CNLOPB.

4.0. RFP CLOSING AND DELIVERY

4.1. One (1) electronic copy of the Proposal, including any supporting documentation, must be [received at the following email information@cnlopb.ca] with the cover page of the



Proposal being clearly marked as follows:

Canada-Newfoundland and Labrador Offshore Petroleum Board
240 Waterford Bridge Road
The Tower Corporate Campus – West Campus Hall - Suite 7100
St. John's, NL A1E 1E2

Attention: Rodney Rees, Information Technology Manager
RFP- Server Processing Procurement
RFP Number: 09230-417-034

Closing Date and Time: November 28, 2023 at 2:00 PM Newfoundland Time (NT)

5.0. SUBMISSION REQUIREMENTS

- 5.1. Proponents must comply with the instructions provided in this RFP. Compliant Proposals are those that clearly demonstrate a thorough understanding of this RFP and its stated requirements and criteria.
- 5.2. Proposals must be professional, clear and meet the requirements of this RFP. A thorough response to all mandatory elements is required for the Proposal to be complete. A Proposal risks being judged incomplete and may be disqualified if:
 - instructions are not adhered to;
 - it does not contain sufficient detail;
 - it does not contain all the required information;
 - criteria are not clearly addressed in the format required as described in section 6.0
 of this RFP.
- 5.3. Proposals must provide the name, mailing address, email address and telephone number of the Proponent's contact person.
- 5.4. Proposals must be signed by an authorized representative of the Proponent. Unsigned Proposals shall not be considered.
- 5.5. INTENTIONALLY OMITTED
- 5.6. INTENTIONALLY OMITTED
- 5.7. Where the Proponent is a corporation, the Proponent may be asked to provide a certificate of good standing from the Registry of Companies for the Province of Newfoundland and Labrador and confirmation it is in good standing with Workplace NL, prior to entering into a Contract if the Proponent is successful.



- 5.8. Proponents may include supporting documentation cross-referenced to their Proposal to assist in the evaluation.
- 5.9. The C-NLOPB reserves the right to print copies of the Proposal from the electronic copy provided by the Proponent in whole or in part.

6.0. REQUIRED PROPOSAL FORMAT

- 6.1. To ensure consistency and fairness, Proponents are to submit Proposals in the following format:
 - (a) Title Page
 - (b) Table Of Contents
 - (c) Executive Summary (a one or two page summary of the key features of the Proposal)
 - (d) Checklist of Mandatory Requirements in the form set out in Appendix "B".
 - (e) Proponent's response (the body of the Proposal, including pricing see Appendix "C")
 - (f) Appendices (if any), tabbed and referenced.

7.0. QUESTIONS AND CLARIFICATION

- 7.1. All inquiries related to this RFP must be directed via email to Rodney Rees, Information Technology Manager, at the following email address: rrees@cnlopb.ca. Inquiries must be received by November 22, 2023 to allow sufficient response time from the C- NLOPB, otherwise a response cannot be guaranteed.
- 7.2. All questions must include the Proponent's name and address, contact person's name, telephone number and email address, and must identify the specific section and page number of this RFP in question.
- 7.3. To the extent that the C-NLOPB considers that the answer to a question may clarify any aspect of this RFP or assist in the preparation of Proposals by other Proponents, an addenda will be posted on the C-NLOPB's website which will be part of this RFP. The C-NLOPB may not answer a question where it considers the information requested is not required to prepare a response to this RFP, or where the answer to the question posed may be found in this RFP.
- 7.4. The C-NLOPB reserves the right in its sole discretion to clarify any Proposal after the Closing Date and Time by seeking further information from that Proponent, without becoming obligated to clarify or seek further information from any or all other



Proponents. However, Proponents are cautioned that any clarifications sought will not be an opportunity to correct or amend the Proposal in any substantive manner.

8.0. TERMS AND CONDITIONS

- 8.1. Submitting a Proposal indicates acceptance of all the terms and conditions set out in this RFP. Any Proposals received will not attract responsibilities or rights on the part of the Board or Proponents under what has been legally interpreted as a *contract "A"/contract "B"* analysis.
- 8.2. The Proponent must submit its complete Proposal before the Closing Date and Time. Proposals received late or not received completely by the Closing Date and Time will not be considered.
- 8.3. Proposals will be marked by their receipt time. In the case of a dispute, the Proposal receipt time as recorded by the C-NLOPB at its location will prevail.
- 8.4. All costs quoted in this RFP must be in Canadian Dollars.
- 8.5. INTENTIONALLY OMITTED
- 8.6. INTENTIONALLY OMITTED
- 8.7. Proponents must be in compliance with all applicable legislative and regulatory requirements, including, but not limited to, all labour, occupational health and safety, and worker's compensation legislation and regulations.
- 8.8. Proponents acknowledge that the C-NLOPB is subject to the *Access to Information Act*, R.S.C., 1985, c. A-1 (as amended from time to time), and that information contained in the Proposal submitted in response to this RFP could be disclosed as a result of the application of that Act.
- 8.9. Proponents shall not use the C-NLOPB's name or logo or make reference to this RFP in any advertising copy or other promotional materials or messages without the CNLOPB's prior written consent.
- 8.10. Proposals must remain open and irrevocable for a period of ninety (90) days from the Closing Date and Time.
- 8.11. All documents, materials, articles and information submitted by the Proponent as part of, or in support of a Proposal shall become upon submission, the property of the C-NLOPB and shall not be returned to the Proponent.



- 8.12. The C-NLOPB makes no representation, warranty or guarantee as to the accuracy of the information contained in this RFP. Any quantities shown, data, or opinion contained in this RFP, are estimates only and are for the sole purpose of indicating to Proponents the general scale and Work that may be required.
- 8.13. Proponents shall not engage in any form of political or other lobbying whatsoever with respect to this RFP or otherwise attempt to influence the outcome of the selection process. In the event of any such activity, the C-NLOPB, at its sole discretion, may at any time, but is not required to, reject any response by that Proponent without further consideration, and either terminate that Proponent's continued participation in the selection process or impose conditions on that Proponent's continued participation that the C-NLOPB, in its sole discretion, deems appropriate.
- 8.14. Proponents are solely responsible, and without recourse to the C-NLOPB for any expenses a Proponent may incur in preparing and submitting a Proposal and for its participation in this RFP process including, but not limited to, providing additional information that may be requested by the C-NLOPB.
- 8.15. Irregularities or errors of a non-material nature in a Proposal may be waived by the C-NLOPB at its sole discretion.
- 8.16. Notwithstanding any other section of this RFP, the C-NLOPB reserves the right to reject any and all Proposals received in response to this RFP. Reasons for rejection include, but are not limited to, the following:
 - (a) Proposals received after the Closing Date and Time;
 - (b) Incomplete Proposals;
 - (c) Proposals containing qualifications or conditions added by the Proponent that are unacceptable to the C-NLOPB in its sole discretion;
 - (d) Proposals which do not meet the requirements specified in this RFP.

8.17. INTENTIONALLY OMITTED

- 8.18. Any conflicts, discrepancies errors or omissions between this RFP, the Proposal the Contract, and any Schedules to the Contract, shall be resolved in the following order of priority:
 - (a) the Contract;
 - (b) the Schedules to the Contract;
 - (c) this RFP; and
 - (d) the Proposal.



9.0. NO CLAIMS BY PROPONENT

- 9.1. The Proponent, by participating in the process outlined in this RFP document, consents to the procedures as described in this RFP, and the Proponent acknowledges and agrees that the C-NLOPB will not be liable to any Proponent for any claims, direct or indirect, whether for costs, expenses, losses or damages, or loss of anticipated profits, or for any other matter whatsoever incurred by the Proponent:
 - (a) in preparing and providing a Proposal;
 - (b) negotiations with the C-NLOPB, if any;
 - (c) non-acceptance or rejection of a Proposal; and
 - (d) cancellation of this RFP without award.

10.0. EVALUATION AND AWARD

- 10.1. The successful Proponent will be notified in writing by the C-NLOPB and notification of the outcome may be posted on the C-NLOPB's website. The C-NLOPB reserves the right to award to a Proponent whose Proposal may not represent the lowest overall cost. If a Contract results from this RFP process, it shall be awarded to the qualified Proponent whose Proposal is the most acceptable to the C-NLOPB in its sole discretion. Issuing this RFP implies no obligation on the CNLOPB to accept any Proposal in whole or in part.
- 10.2. The successful Proponent will be selected in the sole discretion of the C-NLOPB, based on the Mandatory Requirements in Appendix "B" and additional criteria specific to the Work, including, but not limited to:
 - ability to meet and understand C-NLOPB requirements in this RFP. Proposals will be evaluated based on the strength of understanding of C-NLOPB Work requirements as demonstrated in the Proposal;
 - (b) demonstrated experience with similar projects;
 - (c) overall cost of the Proposal (including proposed pricing and any other costs to be incurred by the C-NLOPB);
 - (d) ability to meet C-NLOPB timelines for starting and completing the Work;
 - (e) project approach and plan;
 - (f) innovation or creativity; and

The criteria above are not necessarily listed in order of priority.

10.3 In evaluating responses to this RFP, first consideration shall be given by the Board to Proposals which:



- (a) provide employment for individuals resident in the Province, and
- (b) offer services provided from within the Province / goods manufactured in the Province, where those services and goods are competitive in terms of fair market price, quality and delivery.

11.0. CONFIDENTIALITY

- 11.1. The C-NLOPB will, to the extent it reasonably can and subject to its obligations under law, hold confidential any information labelled as confidential provided to it by Proponents. If for any reason information provided to the C-NLOPB should not be disclosed because of its sensitive nature, then it is incumbent upon the Proponent when supplying the information to make this clear and to specify the reasons for the information's sensitivity.
- 11.2. The successful Proponent and its respective staff may be required to sign a formal confidentiality/non-disclosure agreement relating to the protection of confidential information of the C-NLOPB to which they may have access to during the course of the Contract.
- 11.3. The successful Proponent shall not disclose or make public any statements or material acquired or produced in relation to this RFP or any subsequent Contract without the prior written permission of the C-NLOPB.

12.0. CONFLICT OF INTEREST

12.1. Proponents shall disclose any information that might be relevant to an actual or potential conflict of interest. Proponents must warrant that, at the date of the acceptance of their Proposal, no conflict of interest exists or is likely to arise in the performance of their obligations under the Contract. If during the term of the Contract, a conflict of interest or a risk of a conflict of interest arises, the Proponent shall notify the C-NLOPB immediately in writing of that conflict or risk.



APPENDIX "A" - SCOPE OF WORK

1.0 PROJECT OVERVIEW

This section provides an overview of the Project for informational purposes only. Proponents are not expected to respond to this background information.

The C-NLOPB is looking to modernize the Information Technology infrastructure specifically in the area of our server processing capacity. Throughout the development of this RFP significant effort has been completed to ensure compatibility with existing equipment, while at the same time limiting the variety of Proponent equipment to ensure IT efficiency and supportability is maintained. Two solutions have been identified which may be used, and are outlined below.

2.0 Proponents should provide a quote based on the Bill of Materials (BOM) provided for Solution 1 and/or Solution 2, under APPENDIX "E" and APPENDIX "F" respectively (also available as an Excel file). Proponents may provide a Proposal for one of the BOMs, or a Proposal for each.

The Proposal should include the OEM parts exactly as listed; substitutions, refurbished, or remanufactured equipment will not be accepted.

The Proposal should clearly indicate expected delivery dates for delivery of all components to our office at the address below:

Canada-Newfoundland and Labrador Offshore Petroleum Board
240 Waterford Bridge Road
The Tower Corporate Campus – West Campus Hall - Suite 7100
St. John's, NL A1E 1E2



APPENDIX "B" - MANDATORY REQUIREMENTS CHECK LIST

Check Box to be completed and included with the Proposal.

The Proposal package contains one (1) complete electronic copy of the RFP Proposal and related documentation	
The Proposal was delivered in full on or before the Closing Date and Time	
The Proposal is signed by an authorized representative of the Proponent	
The Proponent has read and understood the RFP and the C-NLOPB's requirements and it's presentation is clear, professional and complete.	



APPENDIX "C" - PRICING

The Proposal shall contain a fixed price, inclusive of all fees, expenses and incidentals to perform the Work as described in this RFP. Prices quoted must be in Canadian Dollars, exclusive of HST.



APPENDIX "D" – INTENTIONALLY OMITTED



APPENDIX "E" – SOLUTION 1 BILL OF MATERIALS

Line#	Category	Vendor	Product Number	Qty	Description	Service Duration			
	HPe Synergy C	hassis - New							
.0	Hardware	HPE	P51174-B21		1 HPE Synergy 12000 Configure-to-order Frame				
.0.1	Hardware	HPE	P51174-B21 ABA		1 HPE Synergy 12000 CTO Frame				
1	Hardware	HPE	867796-B21		2 HPE Virtual Connect SE 100Gb F32 Module for Synergy				
1.1	Hardware	HPE	845406-B21		2 HPE 100Gb QSFP28 to QSFP28 3m Direct Attach Copper Cable				
1.2	Hardware	HPE	455883-B21		7 HPE BladeSystem c-Class 10Gb SFP+ SR Transceiver				
1.3	Hardware	HPE	P9H30A		4 HPE 32Gb SFP28 Short Wave Commercial Temperature Transceiver				
1.4	Hardware	HPE	845970-B21		8 HPE QSFP28 to SFP28 Adapter				
1.5	Hardware	HPE	845972-B21		2 HPE 100Gb QSFP28 Bidirectional Transceiver				
2	Hardware	HPE	876852-B21		2 HPE Synergy 4-port Frame Link Module				
3	Hardware	HPE	798096-B21		1 HPE 6x 2650W Performance Hot Plug Titanium Plus FIO Power Supply Kit				
4	Hardware	HPE	P51175-B21		0 HPE Synergy 12000 High Capacity Fan Kit				
5	Hardware	HPE	804938-B21		1 HPE Synergy Frame Rack Rail Kit				
6	Hardware	HPE	804943-B21		1 HPE Synergy Frame 4x Lift Handles				
7	Licence	HPE	R3P67A		2 HPE Synergy 32Gb Fibre Channel Upgrade FIO LTU				
8	Licence	HPE	R7A12AAE		6 HPE GreenLake for Compute Ops Management Enhanced 5-year Upfront ProLiant SaaS	60 months			
9	Services	HPE	HA124A1		1 HPE Technical Installation Startup SVC	OU IIIUIILIIS			
9.1	Services	HPE	HA124A1 V10		1 HPE Synergy Grow Conf SVC				
10	Support	HPE	HU4A7A5		1 HPE 5Y Tech Care Essential with Defective Media Retention Service	60 months			
10.1		HPE	HU4A7A5 WJN		1 HPE Synergy 1200 Frame Supp	60 months			
10.1	Support				, , , , , , , , , , , , , , , , , , , ,				
10.2	Support	HPE	HU4A7A5 Z1R		2 HPE Synergy VC SE 100Gb F32 Module Supp	60 months			
	HPE Fibre Cha			,					
0	Hardware	HPE	R8P28A		2 HPE SN3600B 32Gb 24/24 Power Pack+ 24-port 32Gb Short Wave SFP28 Fibre Channel Switch				
1	Support	HPE	HU4A6A5		1 HPE 5Y Tech Care Essential Service	60 months			
1.1	Support	HPE	HU4A6A5 ZTL		2 HPE SN3600B 24/8 8p 32G Swch Support	60 months			
	HPE Synergy S	ervers - New	, `						
.0	Hardware	HPE	P39531-B21		6 HPE Synergy 480 Gen11 Configure-to-order Compute Module	1			
0.1	Hardware	HPE	P49598-B21		2 Intel Xeon-Gold 6426Y 2.5GHz 16-core 185W Processor for HPE				
0.2	Hardware	HPF	P43328-B21		16 HPE 32GB (1x32GB) Dual Rank x8 DDR5-4800 CAS-40-39-39 EC8 Registered Smart Memory Kit				
.0.3	Hardware	HPE	P39594-B21		6 HPE SY480 Gen11 Drive Less Kit				
0.4	Hardware	HPE	P40513-B21		2 HPE 480GB NVMe Gen3 Mainstream Performance Read Intensive M.2 Multi Vendor SSD				
.0.5	Hardware	HPE	P39568-B21		6 HPE NS204i-d Gen11 Ctrlr Kit				
.0.6	Hardware	HPE	P02054-B21		6 HPE Synergy 6820C 25/50Gb Converged Network Adapter				
0.7	Hardware	HPE	P39587-B21		6 HPE SY480 Gen11 CPU Front HS Kit				
0.8	Hardware	HPE	P39589-B21		6 HPE SY480 Gen11 CPU Front HS Kit				
1		HPE	HU4A7A5		1 HPE 5Y Tech Care Essential with Defective Media Retention Service	60 months			
	Support								
1.1	Support	HPE	HU4A7A500ES		6 HPE SY480 Gen11 Support	60 months			
	HPE Synergy C	HPE Synergy Chassis - Upgrade							
.0	Hardware	HPE	872957-B21		2 HPE Synergy Composer2 Management Appliance				
.0.1	Support	HPE	HU4A7A5 Z1Q		2 HPE Synergy Composer2 Support	60 months			
.1	Hardware	HPE	876852-B21		2 HPE Synergy 4-port Frame Link Module				
1.1	Hardware	HPE	455883-B21		3 HPE BladeSystem c-Class 10Gb SFP+ SR Transceiver				
2	Services	HPE	H1SR4AS		1 HPE Service Credit				
.3	Services	HPE	H0JD4A1		1 HPE 1Y Service Credits 10 Per Yr SVC				
3.1	Services	HPE	H0JD4A1 WFK		1 HPE 1Y Service Credits Qty 10 SVC				
3.2	Services	HPE	HP7D3A1		1 HPE Onsite Comp Synergy Migration SVC				
	HPE Switch Tra	4	,	,		1			
0	Hardware	HPE	845972-B21	1	2 HPE 100Gb QSFP28 Bidirectional Transceiver				
			•		ZITE TOOOD GOLF ZO DIGHECHOHAL FLANSCEIVEL				
	HPE Synergy S			1	1	1			
.0	Hardware	HPE	876449-B21		6 HPE Synergy 4820C 10/20/25Gb Converged Network Adapter				
.1	Hardware	HPE	P47818-B21		HPE 480GB SATA 6G Read Intensive M.2 Multi Vendor SSD	1			
.2	Hardware	HPE	P38437-B21		8 HPE Synergy 480 Gen10 M2 NGFF Adapter Kit				
.3	Licence	HPE	R7A12AAE		8 HPE GreenLake for Compute Ops Management Enhanced 5-year Upfront ProLiant SaaS	60 months			



APPENDIX "F" – SOLUTION 2 BILL OF MATERIALS

Line #	Catogory	Vendor	Product Number	Otre	Description	Comiles
Line #	Category	vendor	Product Number	Qty	Description	Service Duration
	CISCO UCS	Chassis -	_			Duration
0	Hardware	Cisco	UCSX-M7-XCCELERATE	1	UCS-X M7 XCcelerate Offer	
l.1	Licence	Cisco	DC-MGT-SAAS		Cisco Intersight SaaS	
l.1.1	Support	Cisco	DC-MGT-IS-SAAS-ES		Infrastructure Services SaaS/CVA - Essentials	60 month
1.1.2	Support	Cisco	SVS-DCM-SUPT-BAS		Basic Support for DCM	00 111011011
1.1.3	Licence	Cisco	DC-MGT-UCSC-1S		UCS Central Per Server - 1 Server License	
1.2	Hardware	Cisco	UCSX-9508-NEW-D		Not sold standalone UCS 9508 Chassis w/o nodes	
1.2.0.1	Hardware	Cisco	CON-L14OS-UCSX5958		CX LEVEL 1 24X7X4OS Not sold standalone UCS 9508 Chassis w/o	60 month
1.2.1	Hardware	Cisco	UCSX-I-9108-25G-D		UCS 9108-25G IFM for 9508 Chassis	
1.2.2	Hardware	Cisco	UCSX-C-DEBUGCBL-D	1	UCSX Compute Node Debug Cable	
1.2.3	Software	Cisco	UCSX-CHASSIS-SW-D	1	Platform SW (Recommended) latest release for X9500 Chassis	
1.2.4	Hardware	Cisco	UCSX-9508-CAK-D		UCS 9508 Chassis Accessory Kit	
1.2.5	Hardware	Cisco	UCSX-9508-RBLK-D	2	UCS 9508 Chassis Active Cooling Module (FEM slot)	
L.2.6	Hardware	Cisco	UCSX-9508-ACPEM-D	2	UCS 9508 Chassis Rear AC Power Expansion Module	
L.2.7	Hardware	Cisco	UCSX-9508-KEYAC-D	1	UCS 9508 AC PSU Keying Bracket	
L.2.8	Hardware	Cisco	UCSX-9508-FSBK-D	8	UCS 9508 Chassis Front Node Slot Blank	
1.2.9	Hardware	Cisco	UCSX-PSU-2800AC-D	6	UCS 9508 Chassis 2800V AC Dual Voltage PSU Titanium	
1.2.10	Hardware	Cisco	CAB-C19-CBN	6	Cabinet Jumper Power Cord, 250 VAC 16A, C20-C19 Connectors	
	CISCO Fab	ric InterC	onnect - New			
L.4	Hardware	Cisco	UCSX-FI-6454-NEW-D	2	XCellerate offer for Fabric Interconnect 6454	
1.4.0.1	Support	Cisco	CON-L14OS-UCSXEFXD		CX LEVEL 1 24X7X4OS XCellerate offer for Fabric Interconnect	60 month
1.4.1	Software	Cisco	N10-MGT018-D	2	UCS Manager v4.2 and Intersight Managed Mode v4.2	
1.4.2	Licence	Cisco	UCS-L-6400-25G-D		FI per port license to connect to B-Series, C-Series or FEX	
.4.3	Licence	Cisco	UCS-L-6400-100G-D		FI per port license to connect to B-Series, C-Series or FEX	
.4.4	Hardware	Cisco	UCS-PSU-6332-AC-D	4	UCS 6332/ 6454 Power Supply/100-240VAC	
L.4.5	Hardware	Cisco	CAB-9K12A-NA	4	Power Cord, 125VAC 13A NEMA 5-15 Plug, North America	
1.4.6	Hardware	Cisco	SFP-10G-SR-S	4	10GBASE-SR SFP Module, Enterprise-Class	
1.4.7	Hardware	Cisco	DS-SFP-FC16G-SW	4	16 Gbps Fibre Channel SW SFP+, LC	
1.4.8	Hardware	Cisco	SFP-25G-AOC3M	8	25GBASE Active Optical SFP28 Cable, 3M	
1.4.13	Hardware	Cisco	QSFP-40/100-SRBD	4	100G and 40GBASE SR-BiDi QSFP Transceiver, LC, 100m OM4 MMF	
1.4.9	Hardware	Cisco	UCS-ACC-6332-D	2	UCS 6332/ 6454 Chassis Accessory Kit	
1.4.10	Hardware	Cisco	UCS-FAN-6332-D	8	UCS 6332/ 6454 Fan Module	
1.4.11	Hardware	Cisco	SFP-H25G-CU3M	16	25GBASE-CU SFP28 Cable 3 Meter	
	CISCO UCS	Servers -	- New			
1.3	Hardware	Cisco	UCSX-210C-M7-U	6	UCS X210c M7 Compute Node 2S w/o CPU, Mem, Drv, Mezz	
1.3.0.1	Support	Cisco	CON-L14OS-UCSX023C	6	CX LEVEL 1 24X7X4OS UCS X210c M7 Compute Node 2S w o CPU, Me	60 month
L.3.9	Hardware	Cisco	UCSX-ML-V5Q50G-D	6	Cisco VIC 15420 4x 25G mLOM X-Series w/Secure Boot	
l.3.1	Hardware	Cisco	UCSX-TPM-002C-D	6	TPM 2.0, TCG, FIPS140-2, CC EAL4+ Certified, for servers	
1.3.2	Software	Cisco	UCSX-C-SW-LATEST-D	6	Platform SW (Recommended) latest release XSeries ComputeNode	
1.3.3	Hardware	Cisco	UCSX-C-M7-HS-F	6	UCS X210c M7 Compute Node Front CPU Heat Sink	
L.3.4	Hardware	Cisco	UCSX-C-M7-HS-R	6	UCS X210c M7 Compute Node Rear CPU Heat Sink	
L.3.5	Hardware	Cisco	UCSX-M2-HWRD-FPS	6	UCSX Front panel with M.2 RAID controller for SATA drives	
1.3.10	Hardware	Cisco	UCSC-BBLKD-M7	24	UCS C-Series M7 SFF drive blanking panel	
1.3.13	Hardware	Cisco	UCSX-CPU-I6426Y	12	Intel I6426Y 2.5GHz/185W 16C/37.5MB DDR5 4800MT/s	
1.3.6	Hardware	Cisco	UCSX-MRX16G1RE1	192	16GB DDR5-4800 RDIMM 1Rx8 (16Gb)	
1.3.11	Hardware	Cisco	UCSX-X10C-RAIDF-D	6	UCS X10c Compute RAID Controller with LSI 3900 (Front)	
L.3.12	Hardware	Cisco	UCSXSD240GBM1XEVD	12	240GB 2.5in Enter Value 6G SATA Micron G2 SSD	
L.3.7	Hardware	Cisco	UCS-SID-INFR-OI-D	6	Other Infrastructure	
3.8	Hardware	Cisco	UCS-SID-WKL-OW-D	6	Other Workload	
	Cisco Fibro	<u>Channel</u>	Switches - New			
2.0	Hardware	Cisco	DS-C9124V-24PETK9	2	MDS 9124V 64G FC switch, w/ 24 active ports +32G SW, exhaust	
.0.1	Support	Cisco	CON-SNTP-DSC09124	2	SNTC-24X7X4 MDS 9124V 64G Fabric Switch Base PID	
.1	Hardware	Cisco	DS-CAC-500W-E	4	MDS 9100V 500W Port Side Exhaust PSU	
2.2	Hardware	Cisco	CAB-C15-CBN	4	Cabinet Jumper Power Cord, 250 VAC 13A, C14-C15 Connectors	
3	Hardware	Cisco	DS-C32S-FAN-E	8	MDS 9132 FAN tray , port side Exhaust	
.4	Licence	Cisco	M9124V-PL8	4	MDS 9124V 64G FC switch 8-port upgrade license	
		C:	DC CED ECSSC CW	10	32 Gbps Fibre Channel SW SFP+, LC	
2.5	Hardware	Cisco	DS-SFP-FC32G-SW	40	32 dups Tible Charliner 3W 3FF+, LC	



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	HPe Syne	rgy Chas	<u>sis - Upgrade</u>					
4.0	Hardware	HPE	872957-B21	2 HPE Synergy Composer2 Management Appliance				
4.0.1	Support	HPE	HU4A7A5 Z1Q	2 HPE Synergy Composer2 Support	60 months			
4.1	Hardware	HPE	876852-B21	2 HPE Synergy 4-port Frame Link Module				
4.1.1	Hardware	HPE	455883-B21	3 HPE BladeSystem c-Class 10Gb SFP+ SR Transceiver				
4.2	Services	HPE	H1SR4AS	1 HPE Service Credit				
4.3	Services	HPE	H0JD4A1	1 HPE 1Y Service Credits 10 Per Yr SVC				
4.3.1	Services	HPE	H0JD4A1 WFK	1 HPE 1Y Service Credits Qty 10 SVC				
4.3.2	Services	HPE	HP7D3A1	1 HPE Onsite Comp Synergy Migration SVC				
	HPE Switch Tranceivers - Upgrade							
5.0	Hardware	HPE	845972-B21	4 HPE 100Gb QSFP28 Bidirectional Transceiver				
	HPE Synergy Servers - Upgrade							
6.0	Hardware	HPE	876449-B21	6 HPE Synergy 4820C 10/20/25Gb Converged Network Adapter				
6.1	Hardware	HPE	P47818-B21	16 HPE 480GB SATA 6G Read Intensive M.2 Multi Vendor SSD				
6.2	Hardware	HPE	P38437-B21	8 HPE Synergy 480 Gen10 M2 NGFF Adapter Kit				
6.3	Licence	HPE	R7A12AAE	8 HPE GreenLake for Compute Ops Management Enhanced 5-year Upfront ProLiant SaaS	60 months			

Lines # 3.X intentionally omitted from Solution 2 to keep numbering of parts consistent between solutions 1 and 2.

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