



BSWM- BIDS AND AWARDS COMMITTEE

SUPPLEMENTAL BID BULLETIN

ADDENDUM NO. 2021-09-043-01

CONTRACT: SUPPLY AND DELIVERY OF ICT HARDWARE, SOFTWARE, NETWORK EQUIPMENT, AND VARIOUS SUPPLIES AND PERIPHERALS FOR BATCH 5 FOR CY 2021- IB NO. BSWM 2021-09-043

This **Addendum** is being issued in accordance with **Section 22.5.2 of the IRR of RA 9184**, to clarify and modify some provision of the Bidding Document. **THIS SHALL FORM AN INTEGRAL PART OF THE BID DOCUMENT.** Likewise, the succeeding agreements and reminders were discussed during the **Pre-Bid Conference** held last **October 12, 2021, 9:30AM at the BSWM Function Hall and via Videoconferencing-Zoom.**

I. DISCUSSION OF THE BIDDING DOCUMENT:

- **Total ABC of the contract:** **Php 24, 392,088.00**
 - Lot 1- Php 1,450,000.00
 - Lot 2- Php 1,000,000.00
 - Lot 3- Php 15,230,000.00
 - Lot 4- Php 2,340,550.00
 - Lot 5- Php 4,371,538.00
- Bidder must have completed a single contract that is similar to this project, equivalent to **at least fifty percent (50%) of the ABC.**
- **Awarding:** Project having several items that shall be awarded as one contract.

Similar contracts shall be contract for supply and delivery of various ICT hardware, software, network equipment, supplies and peripherals and/or its equivalent, completed within two (2) consecutive years from the date of submission and receipt of bids.

II. CLARIFICATION AND AGREEMENTS DURING THE PRE-BID CONFERENCE:

QUERIES/CLARIFICATION/s	RESPONSE/AGREEMENT/s
Can the Schedule of Requirement /Completion of Work of 30 calendar days extended to 60 calendar days?	Items charged against General Appropriations Act for CY 2020, which shall be in accordance with Republic Act No. 11520: An Act Extending the Availability of the 2020 Appropriations to December 31, 2021: <i>“Obligation, Completion/Delivery, Inspection and Payment shall be made not later than December 31, 2021.”</i>
For statement of all ongoing contract/s, do the bidder need to include the contract that has been completely delivered, but not yet paid?	Yes, contract/s that has not yet paid were not considered as completed. Amount or value of all outstanding or uncompleted portions of the projects under ongoing contracts, including awarded contracts yet to be started, coinciding with the contract to be bid. The total



	<p>amount of the ongoing and awarded but not yet started contracts should be consistent with those used in the Net Financial Contracting Capacity (NFCC).</p> <p>This statement shall be supported with Notice of Award.</p> <p>Please refer to the attached Annex C for the sample format of the statement.</p>
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III. AMMENDMENTS IN THE BIDDING DOCUMENT:

SECTION I. INVITATION TO BID:

ORIGINAL	AMENDED
<p>1. The Bureau of Soils and Water Management, through the General Appropriations Act for CY 2021 and CY 2020 through SARO Number BMB-E-21-0002351 intends to apply the sum of:</p> <p>LOT 1- SUPPLY AND DELIVERY OF MICROSOFT WINDOWS SOFTWARE (FUNDED UNDER GAA CY 2020)</p> <p>ABC: One Million Four Hundred Fifty Thousand pesos (Php 1,450,000.00)</p> <p>LOT 2- SUPPLY AND DELIVERY OF SOFTWARE AND BARCODE SOLUTIONS (FUNDED UNDER GAA CY 2020)</p> <p>ABC: One Million pesos (Php 1,000,000.00)</p> <p>LOT 3- SUPPLY AND DELIVERY OF VARIOUS ICT SERVER SYSTEM, STORAGE, NETWORK SECURITY, SWITCHES AND EQUIPMENT (FUNDED UNDER GAA CY 2020)</p> <p>ABC: Fifteen Million Two Hundred Thirty Thousand pesos (Php 15,230,000.00)</p> <p>LOT 4- SUPPLY AND DELIVERY OF ICT EQUIPMENT, SUPPLIES AND PERIPHERALS (FUNDED UNDER GAA CY 2020)</p> <p>ABC: Two Million Three Hundred Forty Thousand Five Hundred Fifty pesos (Php 2,340,550.00)</p> <p>LOT 5- SUPPLY AND DELIVERY OF ICT EQUIPMENT, SUPPLIES AND PERIPHERALS (FUNDED UNDER GAA CY 2021)</p>	<p>2. The Bureau of Soils and Water Management, through the General Appropriations Act for CY 2021 and CY 2020 through SARO Number BMB-E-21-0002351 intends to apply the sum of:</p> <p>LOT 1- SUPPLY AND DELIVERY OF MICROSOFT WINDOWS SOFTWARE (FUNDED UNDER GAA CY 2020)</p> <p>ABC: One Million Four Hundred Fifty Thousand pesos (Php 1,450,000.00)</p> <p>LOT 2- SUPPLY AND DELIVERY OF SOFTWARE AND BARCODE SOLUTIONS (FUNDED UNDER GAA CY 2020)</p> <p>ABC: One Million pesos (Php 1,000,000.00)</p> <p>LOT 3- SUPPLY AND DELIVERY OF VARIOUS ICT SERVER SYSTEM, STORAGE, NETWORK SECURITY, SWITCHES AND EQUIPMENT (FUNDED UNDER GAA CY 2020)</p> <p>ABC: Ten Million Three Hundred Ninety Thousand pesos (Php 10,390,000.00)</p> <p>LOT 4- SUPPLY AND DELIVERY OF ICT EQUIPMENT, SUPPLIES AND PERIPHERALS (FUNDED UNDER GAA CY 2020)</p> <p>ABC: Seven Million One Hundred Eighty Thousand Five Hundred Fifty pesos (Php 7,180,550.00)</p> <p>LOT 5- SUPPLY AND DELIVERY OF ICT EQUIPMENT, SUPPLIES AND PERIPHERALS (FUNDED UNDER GAA CY 2021)</p> <p>ABC: Four Million Three Hundred Seventy-One Thousand Five Hundred Thirty-Eight pesos (Php 4,371,538.00)</p>

<p>ABC: Four Million Three Hundred Seventy-One Thousand Five Hundred Thirty-Eight pesos (Php 4,371,538.00)</p> <p>Total ABC of the contract: Twenty-Four Million Three Hundred Ninety-Two Thousand Eighty-Eight pesos (Php 24, 392,088.00).</p> <p>being the Approved Budget for the Contract (ABC) to payments under the contract for SUPPLY AND DELIVERY OF ICT HARDWARE, SOFTWARE, NETWORK EQUIPMENT, AND VARIOUS SUPPLIES AND PERIPHERALS FOR BATCH 5 FOR CY 2021. Bids received in excess of the ABC shall be automatically rejected at bid opening.</p>	<p>Total ABC of the contract: Twenty-Four Million Three Hundred Ninety-Two Thousand Eighty-Eight pesos (Php 24, 392,088.00).</p> <p>being the Approved Budget for the Contract (ABC) to payments under the contract for SUPPLY AND DELIVERY OF ICT HARDWARE, SOFTWARE, NETWORK EQUIPMENT, AND VARIOUS SUPPLIES AND PERIPHERALS FOR BATCH 5 FOR CY 2021. Bids received in excess of the ABC shall be automatically rejected at bid opening.</p>
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SECTION III. BID DATA SHEET:

ORIGINAL	AMENDED
<p>ITB Clause 5.3</p> <p>For this purpose, contracts similar to the Project shall be:</p> <ol style="list-style-type: none"> Similar contracts shall be contract for supply, delivery and installation of Air Conditioning Units and/or its equivalent. Completed within two (2) years prior to the deadline for the submission and receipt of bids. <p>The Bidder must have completed a single contract that is similar to this Project, equivalent to at least fifty percent (50%) of the ABC.</p>	<p>ITB Clause 5.3</p> <p>For this purpose, contracts similar to the Project shall be:</p> <ol style="list-style-type: none"> Similar contract for supply and delivery of various ICT hardware, software, network equipment, supplies and peripherals and/or its equivalent. Completed within two (2) years prior to the deadline for the submission and receipt of bids. <p>The Bidder must have completed a single contract that is similar to this Project, equivalent to at least fifty percent (50%) of the ABC.</p> <p>Required SLCC per lot:</p> <p>Lot 1- Php 725,000.00</p> <p>Lot 2- Php 500,000.00</p> <p>Lot 3- Php 5,195,000.00</p> <p>Lot 4- Php 3,590,275.00</p> <p>Lot 5- Php 2,185,769.00</p> <p>Attachment/s:</p> <p>SLCC shall be supported/of the end-user's Official Receipt and/or Certificate of Completion/ Acceptance.</p>
<p>Clause 19.3</p> <p>Awarding: One Project having several lots which that shall be awarded as one contract per lot.</p>	<p>Clause 19.3</p> <p>Awarding:</p>



	<p>For Lots 1-3 - One Project having several lots which that shall be awarded as one contract per lot.</p> <p>For Lots 4 and 5- Per item basis. One Project having several items per lot, which shall be awarded as separate contracts per item.</p>
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SECTION VI. SCHEDULE OF REQUIREMENTS:

ORIGINAL	AMENDED
<p>Delivery of goods is required within thirty (30) calendar days upon receipt of Notice to Proceed (NTP).</p> <p>Supplier shall coordinate with the End-user for final schedule of delivery within 7 calendar days from receipt of Notice to Proceed.</p>	<p><u>For Lots 1-4- Delivery of goods is required <u>on or before December 10, 2021.</u></u></p> <p><u>For Lot 5- Delivery of goods is required within <u>sixty (60) calendar days upon receipt of Notice to Proceed (NTP).</u></u></p> <p>Supplier shall coordinate with the End-user for final schedule of delivery within 7 calendar days from receipt of Notice to Proceed.</p>

SECTION VII. TECHNICAL SPECIFICATIONS:

ORIGINAL	AMENDED
LOT 3- SUPPLY AND DELIVERY OF VARIOUS ICT SERVER SYSTEM, STORAGE, NETWORK SECURITY, SWITCHES AND EQUIPMENT (FUNDED UNDER GAA CY 2020)	
<p>Server System and Storage</p> <p>Please see LIMS-Terms of Reference - Annex A for detailed technical specification (Ref. A.1 - A.6)</p> <p>Database Server</p> <p>Application Server</p> <p>Domain Controller Server</p> <p>Network Attached Storage</p> <p>BackUP Tape Drive</p> <p>UPS fr Server</p> <p>Network Security and Switches</p> <p>Please see LIMS-Terms of Reference - Annex A for detailed technical specification (Ref. B.1 - B.8)</p> <p>Network Distribution Switch</p> <p>Network Core Switch</p> <p>Network Appliance Firewall</p>	<p>Server System and Storage</p> <p>Please see LIMS-Terms of Reference - Annex A for detailed technical specification (Ref. A.1 - A.6)</p> <p>Database Server</p> <p>Application Server</p> <p>Domain Controller Server</p> <p>Network Attached Storage</p> <p>BackUP Tape Drive</p> <p>UPS fr Server</p> <p>Network Security and Switches</p> <p>Please see LIMS-Terms of Reference - Annex A for detailed technical specification (Ref. B.1 - B.8)</p> <p>Network Distribution Switch</p> <p>Network Core Switch</p> <p>Network Appliance Firewall</p>



<p>Network DMZ Appliance Network Cabinet (6U Switch Racks) Network & Server Steel Cabinet Network Attached Storage Wireless Router</p> <p>Workstation and Laptop Computers with accessories</p> <p>Please see LIMS-Terms of Reference - Annex A for detailed technical specification (Ref. D.1 - D.10)</p> <p>Workstation Computer Workstation Computer with Printers Windows Laptop Macbook Pro Laptop Industrial Multi-Function Printer Portable HD Projector DSLR Camera with Kit Lens Video Conferencing Device Android Tablet</p> <p>NOTE: Must have standard warranty, customer replaceable unit, on-site support and services</p> <p>ATTACHED IS THE ANNEXES FOR SPECIFIC SPECIFICATION PER ITEM (ANNEX A, ANNEX B AND ANNEX D) FOR COMPLIANCE.</p> <p>Compliance with Section VI. Schedule of Requirement.</p>	<p>Network DMZ Appliance Network Cabinet (6U Switch Racks) Network & Server Steel Cabinet Network Attached Storage Wireless Router</p> <p>NOTE: Must have standard warranty, customer replaceable unit, on-site support and services</p> <p>ATTACHED IS THE ANNEXES FOR SPECIFIC SPECIFICATION PER ITEM (ANNEX A, ANNEX B AND ANNEX D) FOR COMPLIANCE.</p> <p>Compliance with Section VI. Schedule of Requirement.</p>
<p>LOT 4- SUPPLY AND DELIVERY OF ICT EQUIPMENT, SUPPLIES AND PERIPHERALS (FUNDED UNDER GAA CY 2020)</p>	
	<p>Additional items:</p> <p>Workstation and Laptop Computers with accessories</p> <p>Please see LIMS-Terms of Reference - Annex A for detailed technical specification (Ref. D.1 - D.10)</p> <p>33 Workstation Computer 34 Workstation Computer with Printers 35 Windows Laptop 36 Macbook Pro Laptop 37 Industrial Multi-Function Printer 38 Portable HD Projector 39 DSLR Camera with Kit Lens 40 Video Conferencing Device</p>



	<p>41 Android Tablet</p> <p>NOTE: Must have standard warranty, customer replaceable unit, on-site support and services</p> <p>ATTACHED IS THE ANNEXES FOR SPECIFIC SPECIFICATION PER ITEM (ANNEX A, ANNEX B AND ANNEX D) FOR COMPLIANCE.</p>
<p>Please refer to the attached Annex A for the Revised Section VII. Technical Specification.</p>	

IV. REMINDERS DURING THE PRE-BID CONFERENCE:

- The Bureau is now adopting the GPPB Resolution No. 16-2020 dated September 16, 2020 (Simplified PBDs shall be used for Competitive Bidding of Procurement Projects that will be posted upon its effectivity on 06 October 2020).
 - The documents required for eligibility, technical proposal and financial proposal are found at **Section VIII – Checklist of Technical and Financial Documents for Goods** and **Section IX. Checklist of Technical and Financial Documents for Infrastructure** of the bidding document.
- Please refer to the bidding document for the **sample form of Single Largest Completed Contract (SLCC)** and form for **Statement of all ongoing Government & Private Contracts** including Contracts Awarded but not yet started for your reference.

Note: if no ongoing projects/ contracts, please state “none” or “no ongoing projects/contracts” in the form for the Statement of all on going Government and Private Contracts.

- Bidding will be conducted through open competitive bidding procedures using a non-discretionary “pass/fail” criterion as specified in the Implementing Rules and Regulations (IRR) of Republic Act (RA) 9184, otherwise known as the “Government Procurement Reform Act”

“Any lacking documents can cause the automatic disqualification of bids.”

- Below are the **acceptable forms of bid security** that bidders may opt to use, **which shall include the Bid Securing Declaration**. The amount of which shall not be less than the required percentage of the ABC in accordance with the following schedule:

Form of Bid Security	Amount of Bid Security (Not less than the required Percentage of the ABC)
Cash or cashier’s/manager’s check issued by a Universal or Commercial Bank.	Two percent (2%)
Bank draft/guarantee or irrevocable letter of credit issued by a Universal or Commercial Bank: Provided, however, that it shall be confirmed or authenticated by a Universal or Commercial Bank, if issued by a foreign bank.	
Surety bond callable upon demand issued by a surety or insurance company duly certified by the Insurance Commission as authorized to issue such security.	Five percent (5%)

Please NOTE:



Surety bond issued by GSIS as well as a cash deposit certificate is no longer accepted.

Bids and Bid Securities should be valid and firm for a period that shall not exceed one hundred twenty (120) calendar days after the date of the opening of bids.

- Net Financial Contracting Capacity (NFCC):

The computation of a prospective bidder's NFCC must be **at least equal to the ABC to be bid** or, for procurement by lot, **at least equal to the sum of all the ABCs of lots to which it participated**.

NFCC= Current assets minus current liabilities multiplied by 15 (constant factor) minus the value of all outstanding or uncompleted portions of on-going contracts, including awarded contract/s yet to be started, coinciding with the contract to be bid.

- **Sealing and marking of bid proposal**- The bidder shall submit:

1. One (1) ORIGINAL COPY.
2. One (1) DUPLICATE COPY.
3. One (1) PDF COPY in a USB or CD – to be placed inside the Duplicate Copy of Technical Proposal and Duplicate Copy of Financial Proposal.

Please refer to Annex B for illustration.

NOTE:

All photocopied documents must be stamped and signed "Certified True Copy". And all pages/documents must be duly signed by the authorized representative (both original and duplicate copies).

For easy reference, all bidders are requested to provide dog-ear codes/ tabs in the presentation of their documents.

- **Reminders:**

- ✓ Bidders responsibility to read, study, and review the Bidding Document and Bid Bulletin/s of the procurement project.
- ✓ Further clarification/s on the Bidding Document shall be in writing and must be submitted 10 days before the Opening of Bids.
- ✓ All bidders who wish to join the bidding shall download the attached document from PhilGEPS website to be included in the Document Request List (DRL).
- ✓ Bidders may download the updated Bidding Forms at GPPB Website (<https://www.gppb.gov.ph/downloadables.php>).
- ✓ Schedule of Submission and Opening of Bids is subject to change due to Community Quarantine enforced by the government in line with the COVID-19 pandemic. For updates, please refer to the BSWM PhilGEPS posting (<https://www.philgeps.gov.ph/>) and BSWM Procurement Service FB page <https://www.facebook.com/bswmpms>.
- ✓ Authorization letter and a copy of company ID shall be presented by the Representative of the Bidder who will submit the bid proposal and who will attend the Opening of Bids, on-site or online.

- ✓ In case of withdrawal of submitted bid, a letter stating their intention to withdraw from the project should be submitted by the bidder not later than the scheduled deadline of submission and opening of bids.
- ✓ Bidders declared to have the Lowest/ Single Calculated Bid will be subject for Post-qualification.
- ✓ Bidder shall submit the additional requirements listed on the NOTICE as LCB/ SCB within five (5) calendar days from receipt of Notice. *Non-compliance can be grounds for post-disqualification.*
- ✓ Winning Bidders declared to have the Lowest/Single Calculated and Responsive Bid shall submit its Performance Bond and Signed Contract Agreement within ten (10) calendar days from receipt of Notice.

○ **Warranty in accordance with Section 62 of 2016 IRR of RA 9184:**

For the **procurement of Goods**, in order to assure that manufacturing defects shall be corrected by the supplier, a **warranty security** shall be required from the contract awardee, after acceptance by the Procuring Entity of the delivered supplies, for a:

- ✓ minimum period of three (3) months, in the case of Expendable Supplies, or a
- ✓ minimum period of one (1) year, in the case of Non-Expendable Supplies.

The obligation for the warranty shall be covered by either:

- ✓ retention money in an amount equivalent to at least one percent (1%) but not to exceed five percent (5%) of every progress payment, or a
- ✓ special bank guarantees equivalent to at least one percent (1%) but not to exceed five percent (5%) of the total contract price.

The said amounts shall only be released after the lapse of the warranty period or, in the case of Expendable Supplies, after consumption thereof: Provided, however, that the supplies delivered are free from patent and latent defects and all the conditions imposed under the contract have been fully met.

For **Infrastructure Project** please refer to **Section 62.2** of the 2016 Revised IRR of RA 9184.

- A complete set of **Bidding Document** may be acquired by interested Bidders until **October 21, 2021 9:00AM** from the address and website below and **upon payment** of the applicable fee, pursuant to the latest Guidelines issued by the GPPB, in the amount of:

Lot 1- Php 1,500.00
 Lot 2- Php 1,000.00
 Lot 3- Php 10,400.00
 Lot 4- Php 7,200.00
 Lot 5- Php 4,400.00

For bank-to-bank payment (Land bank of the Philippines) for the purchase of bidding documents, please coordinate with the BAC Secretariat thru bswm.bacsec@gmail.com.



DEADLINE/SCHEDULE OF SUBMISSION AND OPENING OF BIDS:

Deadline of submission of bid proposals is on October 26, 2021, 9:00AM.

Opening of Bids is on October 26, 2021, 9:30AM at BSWM Function Hall and via videoconferencing (Zoom).

For precautionary measure against the COVID 19, bidder attendance will be through videoconferencing only. For zoom link, please email the BAC Secretariat at bswm.bacsec@gmail.com.

For guidance and information of all concerned.

(Sgd) DR. GINA P. NILO

BAC Chairperson

Technical Specifications (LOT 3)

Item	Specification	Statement of Compliance
		<p><i>[Bidders must state here either “Comply” or “Not Comply” against each of the individual parameters of each Specification stating the corresponding performance parameter of the equipment offered. Statements of “Comply” or “Not Comply” must be supported by evidence in a Bidders Bid and cross-referenced to that evidence. Evidence shall be in the form of manufacturer’s un-amended sales literature, unconditional statements of specification and compliance issued by the manufacturer, samples, independent test data etc., as appropriate. A statement that is not supported by evidence or is subsequently found to be contradicted by the evidence presented will render the Bid under evaluation liable for rejection. A statement either in the Bidder's statement of compliance or the supporting evidence that is found to be false either during Bid evaluation, post-qualification or the execution of the Contract may be regarded as fraudulent and render the Bidder or supplier liable for prosecution subject to the applicable laws and issuances.]</i></p>

PR 1688 LSD NSHP		
	Server System and Storage Please see LIMS-Terms of Reference - Annex A for detailed technical specification (Ref. A.1 - A.6)	
1	Database Server	
2	Application Server	
3	Domain Controller Server	
4	Network Attached Storage	

REFERENCE NO: A.1
CATEGORY: HARDWARE - A. Server System and Storage

QUANTITY	ITEM	TYPE
1	Server	DATABASE

TECHNICAL SPECIFICATION:

GENERATION:	7 TH -10 TH
PROCESSOR TYPE:	Intel Xeon Platinum Scalable
PROCESSOR CORE:	16 Core
PROCESSOR CACHE INSTALLED:	Yes
PROCESSOR SPEED:	2.7-3.4 GHz
MEMORY TYPE:	16GB DDR4 (1x16GB) Dual Rank x8 SmartMemory
INTERNAL MEMORY:	64-128 GB - upgradable
STORAGE:	SAS Read-Write Intensive 20-50TB Digitally Signed Firmware - Factory Integrated Hot swappable drive bays, support ALL RAID Technology
GRAPHICS:	Built-in GPU Nvidia PCIe 32GB Computational Accelerator Factory Integrated
NETWORK CONTROLLER:	Ethernet 10Gb 2-port SFP Adapter Factory Integrated
REMOTE MANAGEMENT SOFTWARE:	Manufacturer Standard with Intelligent Provisioning, OneView Advance
FAN FACTOR:	Gen10 High Performance Temperature Hot swappable Fan
FORM FACTOR:	Rack Mounted
POWER SUPPLY:	Hot-plug, Fully Redundant Power Supply, Fault Tolerant Redundant, Mixed Mode
FACTORY INTEGRATED:	Smart Array SAS Modular Controller, 10Gb SFP+ SR Transceiver High Performance Temperature Fan Kit Low Halogen Power Supply Kit Embedded System - Server Management Software Gen 10 8-pin Keyed Cable Kit, 2U Large Form Factor Easy Install Rail Kit Gen 10 High Performance Heat Sink Kit Factor Generated Password
REGULATORY:	Regulatory Product Datasheet European Union Declaration of Conformity Energy Regulation Compliance Security Regulatory Compliance
COMPATIBILITY:	Microsoft Windows Server Multi-language Red Hat Enterprise Linux SUSE Linux Enterprise, VMware ESXi
INPUT VOLTAGE:	220ACV

Warranty: standard manufacturer warranty, customer replaceable unit, on-site support and services

INCLUSION:

QTY	UNIT	ITEM	SPECIFICATION
1	LIC	RELATIONAL DATABASE MANAGEMENT SYSTEM	Perpetual License Windows Server SQL 2019 - Enterprise Editions x64 – English Product Key Sticker, Installation Disk, and User Manual
1	pc	MONITOR:	Design: 27-inch LED Curvature for immersive viewing, ultra-slim design Resolution: 1920x1080, Aspect Ratio 16:9 Response Time: 4ms Input: VGA and HDMI Input Connector Voltage: 220v
3	pc	KEYBOARD:	Plug and Play USB Wired-Connection, Industry standard layout with full-size F-keys and number pad, QWERTY Keys US-English, Sturdy adjustable tilt legs, curve space bar
3	pc	MOUSE:	Sensor: Optical, 1000 DPI sensitivity Buttons: 2-primary buttons, clickable scroll wheel USB: wired-usb connector, plug and play, compatible to all MS Windows OS

REFERENCE NO: A.2
 CATEGORY: HARDWARE - A. Server System and Storage

QUANTITY	ITEM	TYPE
1	Server	APPLICATION

TECHNICAL SPECIFICATION:

GENERATION:	7 th ~10 th
PROCESSOR TYPE:	Intel Xeon Silver Scalable
PROCESSOR CORE:	8~16 Core
PROCESSOR CACHE INSTALLED:	Yes
PROCESSOR SPEED:	2.2~3.0 GHz
MEMORY TYPE:	16GB DDR4 (1x16GB) Dual Rank x8 SmartMemory
INTERNAL MEMORY:	64~128 GB - upgradable
STORAGE:	SAS 10~20TB Manufacture Digitally Signed Firmware HDD Factory Integrated Hot Swappable drive bays Support ALL-RAID Technology
GRAPHICS:	Built-in GPU Nvidia PCIe 32GB Computational Accelerator Factory Integrated
NETWORK CONTROLLER:	Ethernet 10Gb 2-port SFP Adapter Factory Integrated
REMOTE MANAGEMENT SOFTWARE:	Manufacturer Standard Remote with Intelligent Provisioning One-View Advance Web-based Remote Access
FAN FACTOR:	Gen10 High Performance Temperature Hot Swappable Fan
FORM FACTOR:	1~4U Rack Mounted
POWER SUPPLY:	Hot-plug, Fully Redundant Power Supply, Fault Tolerant Redundant, Mixed Mode
FACTORY INTEGRATED:	Smart Array SAS Modular Controller 10Gb SFP+ SR Transceiver Low Halogen Power Supply Kit Server Management Software Gen 10 8-pin Keyed Cable Kit 2U Large Form Factor Easy Install Rail Kit
REGULATORY:	Regulatory Product Datasheet European Union Declaration of Conformity Energy Regulation Compliance Security Regulatory Compliance
COMPATIBILITY:	Microsoft Windows Server Multi-language Red Hat Enterprise Linux SUSE Linux Enterprise VMware ESXi
INPUT VOLTAGE:	220ACV

Warranty: standard manufacturer warranty, customer replaceable unit, on-site support and services

INCLUSION:

QTY	UNIT	ITEM	SPECIFICATION
1	LIC	OPERATING SYSTEM	Perpetual License Microsoft Windows Server 2019 - Enterprise Edition x64 - English Product Key Sticker, Installation Disk, and User Manual
10	CAL	Client Access License	Microsoft Windows Client Access License
5	pax	TRAINING:	Certificate of Reservation to Training or Webinar - 5pax inclusion of meal and accommodation (indoor/outdoor)

REFERENCE NO: **A.3**
 CATEGORY: **HARDWARE - A. Server System and Storage**

QUANTITY	ITEM	CLASSIFICATION
1	Server	DOMAIN CONTROLLER

TECHNICAL SPECIFICATION:

GENERATION:	7 th ~10 th
PROCESSOR TYPE:	Intel Xeon Scalable
PROCESSOR CORE:	8~16 Core
PROCESSOR CACHE INSTALLED:	Yes
PROCESSOR SPEED:	2.2~3.0 GHz
MEMORY TYPE:	16GB DDR4 (1x16GB) Dual Rank x8 SmartMemory
INTERNAL MEMORY:	32-128 GB - upgradable
STORAGE:	SAS 5~10TB Digitally Signed Firmware HDD Factory Integrated Hot Swappable drive bays Support all RAID Technology
GRAPHICS:	Built-in GPU Nvidia PCIe 32GB Computational Accelerator Factory Integrated
NETWORK CONTROLLER:	Ethernet 10Gb 2-port SFP Adapter Factory Integrated
REMOTE MANAGEMENT SOFTWARE:	Manufacturer Standard with Intelligent Provisioning, OneView Advance Web-based Remote Management Tools
FAN FACTOR:	Gen10 High Performance Temperature Hot Swappable Fan
FORM FACTOR:	1~4U Rack Mounted
FACTORY INTEGRATED:	Smart Array SAS Modular Controller 10Gb SFP+ SR Transceiver Low Halogen Power Supply Kit Server Management Software Gen 10 8-pin Keyed Cable Kit 2U Large Form Factor Easy Install Rail Kit Gen 10 High Performance Heat Sink Kit
REGULATORY:	Regulatory Product Datasheet European Union Declaration of Conformity Energy Regulation Compliance Security Regulatory Compliance
COMPATIBILITY:	Microsoft Windows Server Multi-language Red Hat Enterprise Linux SUSE Linux Enterprise VMware ESXi
INPUT VOLTAGE:	220ACV

Warranty: standard manufacturer warranty, customer replaceable unit, on-site support and services

INCLUSION:

QTY	UNIT	ITEM	DESCRIPTION
1	pc	MONITOR:	Design: 27-inch LED Curvature for immersive viewing, ultra-slim design Resolution: 1920x1080, Aspect Ratio 16:9 Response Time: 4ms Input: VGA and HDMI Input Connector Voltage: 220v
3	pc	KEYBOARD:	Plug and Play USB Connection, Industry standard layout with full-size F-keys and number pad, QWERTY Keys US-English, Sturdy adjustable tilt legs, curve space bar
3	pc	MOUSE:	Sensor: Optical, 1000 DPI sensitivity Buttons: 2-primary buttons, clickable scroll wheel USB: wired-usb connector, plug and play, compatible to all MS Windows OS
5	pax	TRAINING:	Certificate of Reservation to Training - 5pax inclusion of meal and accommodation

REFERENCE NO: A.4
 CATEGORY: HARDWARE - A. Server System and Storage

QUANTITY	ITEM	CLASSIFICATION
1	Storage	NETWORK ATTACHED SERVER

TECHNICAL SPECIFICATION:

GENERATION:	7 th ~10 th
PROCESSOR TYPE:	Intel Xeon Scalable
PROCESSOR CORE:	8~16 Core
PROCESSOR CACHE INSTALLED:	Yes
PROCESSOR SPEED:	3.2 GHz and above
MEMORY TYPE:	DDR4 Smart Memory
INTERNAL MEMORY:	32~64GB upgradable, with expansion memory slot
STORAGE:	30~50 TB raw capacity, Support external expansion Fibre Channel, MSA SAN Storage Smart Array Controller Support all RAID Technology
HD TYPE:	Hot-plug, hot swappable, SATA or SAS
GRAPHICS:	Built-in GPU Nvidia PCIe 32GB Computational Accelerator Factory Integrated
NETWORK CONTROLLER:	4 x 1GbE Standard
REMOTE MANAGEMENT SOFTWARE:	Web-based GUI
FAN FACTOR:	Redundant Fans Hot swappable
FORM FACTOR:	1~4U Rack Mounted
PROTOCOL SUPPORTED:	SMB, NFS, iSCSI over Ethernet, FTP/S, HTTP/S
FACTORY INTEGRATED:	Drive Clustering Support Management Console Array controller to support external disk enclosures. Replication Features – Microsoft DFS-R, optional Carbonite Double-Take Smart Storage Administration Software Snapshot Support – Microsoft Volume Shadow Copy (VSS)
REGULATORY:	Regulatory Product Datasheet European Union Declaration of Conformity Energy Regulation Compliance Security Regulatory Compliance
COMPATIBILITY:	Microsoft Windows Server Multi-language Red Hat Enterprise Linux SUSE Linux Enterprise, VMware ESXi
INPUT VOLTAGE:	220 ACV

Warranty: standard manufacturer warranty, customer replaceable unit, on-site support and services

INCLUSION:

QTY	UNIT	ITEM	DESCRIPTION
1	pc	MONITOR	Design: 27-inch LED Curvature for immersive viewing, ultra-slim design Resolution: 1920x1080, Aspect Ratio 16:9 Response Time: 4ms Input: VGA and HDMI Input Connector Voltage: 220v
5	pc	KEYBOARD	Design: Slim Multi-Device Keyboard, minimalist design and compact. Connection: USB-2.4 Ghz wireless receiver, battery mode, secure wireless connection Compatible: All Windows Operating System
5	pc	MOUSE	Design: Wireless type, 1000 DPI Laser Grade Optical Sensor, Black Connection: Bluetooth, Wireless range 10meter, battery operated Compatible: All Windows Operating System
5	pax	TRAINING	Certificate of Reservation - 5pax inclusion of meal and accommodation

REFERENCE NO: A.5
CATEGORY: **HARDWARE - A. Server System and Storage**

QUANTITY	ITEM	CLASSIFICATION
1	Backup Drive and Tape Autoloader	TAPE BACKUP DRIVE

TECHNICAL SPECIFICATION:

SUPPORTED TAPE DRIVE TECHNOLOGIES:	LTO-7, LTO-8 WORM SAS Drive
SPEED (Native):	3.5MB/s
BARCODE READER:	Standard
MEDIA BAY:	Up to 9 Media Cartridges
NETWORK INTERFACE:	Ethernet RJ-45 Serial RJ-11 ADI T-10 IPv6 Phase 1 & 2 Ready and DoD APL
PARTIONING SUPPORT:	Yes
FORM:	Orientation: Horizontal, 1~4U Configuration: Rack-mount standard
CONTROLLERS:	For 13G and 14G Servers 12Gb SAS HBA, dual port, low profile, Customer Kit
EXPANSION CAPABILITY:	Yes
USER INTERFACE:	Operator Control Panel LCD Display Panel to check system status, Run Diagnostics, Check Configuration, Verify Drive Operations, Run Inventory and Manage Systems
REMOTE MANAGEMENT:	Remove Web-based Management (RMU) Access the web-based administration through LAN 10/100/1000 Base-T Manage the System and Upgrade Drive and Library Firmware.
INPUT VOLTAGE:	AC power voltage 120-240 VAC
FORM FACTOR:	1-4U Rack Mounted
SUPPORT OPERTING SYSTEM:	Microsoft Windows Servers, OS, Linux and Unix
INTEGRATED:	Perpetual license Back-up Software compatible with all LTO Tape Drives Supports hardware compression and AES 256-bit encryption or higher Drive Imaging and Backup to NAS, RDX, FTP Email notifications, auto task scheduling, reports
POWER:	100~220VAC

Warranty: standard manufacturer warranty, customer replaceable unit, on-site support and services

INCLUSION:

QTY	UNIT	ITEM	DESCRIPTION
1	pc	STEEL STORAGE:	Steel Safety Vault Storage 4 layer, Storage capacity up to 30 LTO Cartridges Combination of Digital and Manual Key Security
100	pc	LTO TAPE LABEL	LTO Media Tape Labels 1-100
2	pc	CABLES	6Gb Mini to HD-Mini SAS Cable 5M
30	pc	MEDIA WITH CASE:	LTO-7~8 Custom Labeled Data Cartridge WORM 15TB Compressed 2.5:1
3	pc	MEDIA CLEANER:	LTO-7~8 Media Cleaner Cartridge WORM
			Design: 27-inch LED Curvature for immersive viewing, ultra-slim design

2	pc	MONITOR:	Resolution: 1920x1080, Aspect Ratio 16:9 Response Time: 4ms Input: VGA and HDMI Input Connector Voltage: 220v
3	pc	KEYBOARD:	Plug and Play USB Wired-Connection, Industry standard layout with full-size F-keys and number pad, QWERTY Keys US-English, Sturdy adjustable tilt legs, curve space bar
3	pc	MOUSE:	Sensor: Optical, 1000 DPI sensitivity Buttons: 2-primary buttons, clickable scroll wheel USB: wired-usb connector, plug and play, compatible to all MS Windows OS
5	pax	TRAINING:	Certificate of Reservation for Training 5pax inclusion of meal and accommodation (indoor/outdoor)

REFERENCE NO: A.6
CATEGORY: HARDWARE - A. Server System and Storage

QUANTITY	ITEM	CLASSIFICATION
4	Smart UPS	UPS FOR SERVERS

TECHNICAL SPECIFICATION:

MAX CONFIGURE POWER:	20k~30kWatts/40.0kVA
TYPE:	Line Interactive
BACKUP TIME:	20~30 minutes
INPUT FREQUENCY:	Manufacture Hz Auto-sensing
INPUT VOLTAGE:	120-240VAC
OUTPUT VOLTAGE:	220V
OUTPUT VOLTAGE DISTORTION:	Less than 10% at full load
OUTPUT FREQUENCY:	Unsynchronized
OUTPUT PORT:	Depend on rack mounted server power input port plug requirement
TOPOLOGY:	Double Conversion On-line
NUMBER OF OUTPUT OUTLET:	10~14
BYPASS:	Internal bypass (automatic and manual)
NETWORK INTERFACE:	Ethernet connection for on-line monitoring
BATTERY LIFE SPAN:	2~5 years
FORM FACTOR:	Tower Type
FEATURES:	Alpha/Numeric LCD Display Smart Slot HotSwappable Batteries Network Manageable
SERVICEABILITY:	Audible alarms, User-replaceable power modules automatic self-test, disconnected battery notification user-replaceable batteries, user-replaceable intelligence modules predictive failure notification
SCALABILITY:	Scalable runtime field-replaceable power distribution panel plug-and-play external batteries programmable frequency scalable power capacity
PROTECTION:	Resettable circuit breakers Safety-agency approved, Generator compatible Input Power Factor Correction, Cold-start capable Frequency and voltage regulation, Power Conditioning
REGULATORY:	RoHS Certificate of Compliance EN 50091-1, EN 50091-2

Warranty: standard manufacturer warranty, customer replaceable unit, on-site support and services

INCLUSION:

QTY	UNIT	ITEM	DESCRIPTION
1	pc	MONITOR:	Design: 27-inch LED Curvature for immersive viewing, ultra-slim design Resolution: 1920x1080, Aspect Ratio 16:9 Response Time: 4ms Input: VGA and HDMI Input Connector Voltage: 220v
3	pc	KEYBOARD:	Plug and Play USB Wired-Connection, Industry standard layout with full-size F-keys and number pad, QWERTY Keys US-English, Sturdy adjustable tilt legs, curve space bar
3	pc	MOUSE:	Sensor Optical, 1000 DPI sensitivity Buttons: 2-primary buttons, clickable scroll wheel USB: wired-usb connector, plug and play, compatible to all MS Windows OS
5	pax	TRAINING:	Certificate of Reservation to Training or Webinar - 5pax inclusion of meal and accommodation (indoor/outdoor)

REFERENCE NO: B.1
CATEGORY: HARDWARE - B. Network Security and Switches

QUANTITY	ITEM	CLASSIFICATION
4	Network	DISTRIBUTION SWITCH

TECHNICAL SPECIFICATION:

NUMBER OF PORTS:	48 PoE Ports 4 SFP+ Ports
SWITCHING (Gbps):	10-176
MEMORY (GB):	1-2 GB
FLASH (MB):	128-256
MAC ADDRESS TABLE:	64-128K
MANAGEMENT:	RJ45 Console – Web based GUI Remote Configuration Manage through Capture Security, SSH, Console Access, Https Access, SNMP, User Management, Dual partition for firmware images, DHCP Snooping, DHCP Relay, SNTP, Radius Authentication
SWITCHING TECHNOLOGY:	Port Control and Settings, PoE, Port Security, EEE, STP, Loopback Detection, Link Aggregation, LACP, Port Mirror, Jumbo Frames, LLDP, IGMP Snooping, Multicast Filtering, QoS, CoS based on 802.1p priority, COS based on DSCP Boot/DHCP Client, Bandwidth Control, RMON, Port Statistics, Static Routing
LAYER 2 FEATURES:	Jumbo Frames, Auto-negotiation for Port Speed and Duplex, MDI/MDIX Auto-crossover, MAC Bridging/STP, Rapid Spanning Tree Protocols (RSTP), Multiple Spanning Tree Protocol (MSTP), VLAN Tagging, Guest VLAN and Voice VLAN, Flow Control and Back-pressure, QoS IEEE 802.1p Based Priority Queuing, IP TOS/DSCP Based Priority Queuing
FORM FACTOR:	Network Cabinet Rack Mounted
SECURITY:	802.1x Authentication, Syslog Collection, IP/MAC ACL, ACL, IEEE 802.1x, IEEE 802.1x Guest and Fallback VLAN, IPS, AV, Application Control, Botnet, Syslog Collection, IEEE 802.1x authentication Port-based IEEE 802.1x Guest and Fallback VLAN
STANDARD:	PoE Standard 802.3at, 802.3af
VOLTAGE REQUIREMENT:	120-220AC Volt
REGULATORY:	1R47-0E7, FCC Class A, ICES Class A, CE EMC Class A, LVD RoHS, C-Tick, VCCI Class A, TUV/GS, NIST (National Institute of Standard and Technology) DISA (Defense Information System Agency)

Warranty: standard warranty, customer replaceable unit, on-site support and services

INCLUSION:

QTY	UNIT	ITEM	DESCRIPTION
100	pc	PATCH CABLE	Cat6 RJ45 Ethernet Patch Cable – 6” inch
100	pc	PATCH CABLE	Cat6 RJ45 Ethernet Patch Cable – 0.3m/1ft
100	pc	PATCH CABLE	Cat6 RJ45 Ethernet Patch Cable – 3m/10ft
200	pc	CONNECTOR	RJ 45 Connector with Rubber boot
5	pax	TRAINING:	Certificate of Reservation to Training or Webinar - 5pax inclusion of meal and accommodation (indoor/outdoor)

REFERENCE NO: B.2
CATEGORY: HARDWARE - B. Network Security and Switches

QUANTITY	ITEM	CLASSIFICATION
1	Network	CORE SWITCH

TECHNICAL SPECIFICATION:

NUMBER OF PORTS:	24 PoE Web-Smart Core Switch 2 SFP+ Ports 10Gb
PORT SPEED:	RJ-45 Ethernet 10/100/1000 PoE Ports
LAYER 2:	Auto-sensing IEEE 802.3x IEEE 802.x STP, RSTP, MSTP Lookback Detection, Link Aggregation IGMP Snooping, LLDP/LLDP-MED/Cable Diagnostic, Jumbo Frame VLANs - 802.1x, Port-Based, Management, Guest, Voice/Surveillance QoS - Rate Limiting, Prioritization, Traffic Scheduling, SPQ, WRR, Hybrid, DiffServ, HW Queues, IPv4, IPv6
QOS:	Rate-limiting, Priority Queues per port Traffic Scheduling, Strict Priority Queuing (SPQ) Weighted Round Robin (WRR) Port-Based QoS, IPv4/IPv6 DSCP DiffServ, HW Queues
MANAGEMENT:	Switch Management, CLI via telnet, Web-based Management, SNMP, DHCP Client, Snooping, SNMP Standard, RMON, System Status, NTP, Dual Configuration, Syslog, Event/Error Log, Memory Flash Log, System Password Protection
FORM FACTOR:	Rack Mounted
SECURITY:	802.1x Authentication, Syslog Collection, IP/MAC ACL, ACL, IEEE 802.1x, IEEE 802.1x Guest and Fallback VLAN, IPS, AV, Application Control, Botnet, Syslog Collection, IEEE 802.1x authentication Port-based, IEEE 802.1x Guest and Fallback VLAN
STANDARD:	PoE Standard 802.3at, 802.3 af
VOLTAGE REQUIREMENT:	120-220AC Volt
REGULATORY:	1RK47-0E7, FCC Class A ICES Class A, CE EMC Class A, LVD RoHS, C-Tick, VCCI Class A, TUV/GS, NIST (National Institute of Standard and Technology) DISA (Defense Information System Agency)

Warranty: standard manufacturer warranty, customer replaceable unit, on-site support and services

INCLUSION:

QTY	UNIT	ITEM	DESCRIPTION
2	pc	SFP Module	RJ45 SFP Module
2	pc	SFP Module	Fiber Optic Module
2	roll	CABLE STRAP	60 meters Velco Strap reusable cable ties (20mm width)
5	pax	TRAINING:	Certificate of Reservation to ICT Training - 5pax inclusion of meal and accommodation (indoor/outdoor)

REFERENCE NO: B.3
CATEGORY: HARDWARE - B. Network Security and Switches

QUANTITY	ITEM	CLASSIFICATION
1	Network	APPLIANCE FIREWALL

TECHNICAL SPECIFICATION:

PERFORMANCE:	Firewall 65 Gbps IPSec VPN 6.1 Gbps IPS 14.7 Gbps Threat Protection 3.4 Gbps SSL Decryption 770 Mbps Ethernet Interface 8x GbE, 2x 10 GbE SFP+ Flexi Port Slots Power Supply Redundancy - Internal
DEEP PACKET INSPECTION:	TLS 1.3 inspection, Intrusion Prevention (IPS) Treat Protection Detection Proxy-based dual-engine AV Scanning Perimeter defenses, Blocking Policy
ENCRYPTED TRAFFIC:	TLS 1.3, Intelligent Traffic Selection Pre-packaged exception list, Powerful policy engine, Ports/Protocol, Support all Cypher Suites Unmatched visibility and error handling
MACHINE LEARNING PROTECTION:	Multiple Machine Learning Models Static File Analysis
CLOUD SANDBOX:	Dynamic Analysis Deep learning Static File Analysis
WEB PROTECTION:	Advance Web Protection, Pharming Protection, HTTPs Scanning, Potential unwanted app control
SECURITY:	Security Heartbeat, Destination Heartbeat Protection, Synchronized App Control, Lateral Movement Protection, Synchronized User ID, Multi-layered, call-home protection, Intelligent Firewall Policies, Traffic light style indicators
USER IDENTIFY:	User identity powers all firewall policies and reporting, User Threat Identification and Monitoring, Synchronized User ID, Flexible authentication options including directory services, two-factor authentication options including directory services.
SOFTWARE:	Manufacture built-in software, Remote Management
FORM FACTOR:	Rack Mounted
STANDARD:	PoE Standard 802.3at, 802.3af
VOLTAGE REQUIREMENT:	120-220AC Volt How swappable power supply
REGULATORY:	1RK47-0E7, FCC Class A, ICES Class A, CE EMC Class A, LVD RoHS, C-Tick, VCCI Class A, TUV/GS, NIST (National Institute of Standard and Technology) , DISA (Defense Information System Agency)

Warranty: standard warranty, customer replaceable unit, on-site support and services

INCLUSION:

QTY	UNIT	ITEM	DESCRIPTION
1	pc	POWER SUPPLY	Hot swappable power supply
1	pc	MODULE	Connector for PoE Power Module
5	pax	TRAINING	Certificate of Reservation to ICT Training - 5pax inclusion of meal and accommodation (indoor/outdoor)

REFERENCE NO: B.4
CATEGORY: HARDWARE - B. Network Security and Switches

QUANTITY	ITEM	CLASSIFICATION
1	Network	DMZ APPLIANCE

TECHNICAL SPECIFICATION:

PERFORMANCE:	DMZ APPLIANCE 65 Gbps IPSec VPN 6.1 Gbps IPS 14.7 Gbps Threat Protection 3.4 Gbps SSL Decryption 770 Mbps Ethernet Interface 8x GbE, 2x 10 GbE SFP+ Flexi Port Slots Power Supply Redundancy - Internal
DEEP PACKET INSPECTION:	TLS 1.3 inspection, Intrusion Prevention (IPS), Treat Protection Detection, Proxy-based dual-engine AV Scanning, Perimeter defenses, Blocking Policy
ENCRYPTED TRAFFIC:	TLS 1.3, Intelligent Traffic Selection, Pre-packaged exception list, Powerful policy engine, Ports/Protocol, Support all Cypher Suites, Unmatched visibility and error handling
MACHINE LEARNING PROTECTION:	Multiple Machine Learning Models, Static File Analysis
CLOUD SANDBOX:	Dynamic Analysis, Deep learning Static File Analysis
WEB PROTECTION:	Advance Web Protection, Pharming Protection, HTTPs Scanning, Potential unwanted app control
SECURITY:	Security Heartbeat, Destination Heartbeat Protection, Synchronized App Control, Lateral Movement Protection, Synchronized User ID, Multi-layered, call-home protection, Intelligent Firewall Policies, Traffic light style indicators
USER IDENTIFY:	User identity powers all firewall policies and reporting, User Threat Identification and Monitoring, Synchronized User ID, Flexible authentication options including directory services, two-factor authentication options including directory services.
SOFTWARE:	Manufacture built-in software, Remote Management
FORM FACTOR:	Rack Mounted
STANDARD:	PoE Standard 802.3at, 802.3af
VOLTAGE REQUIREMENT:	120-220AC Volt
REGULATORY:	1RK47-0E7, FCC Class A, ICES Class A, CE EMC Class A, LVD RoHS, C-Tick, VCCI Class A, TUV/GS, NIST (National Institute of Standard and Technology) , DISA (Defense Information System Agency)

Warranty: standard manufacturer warranty, customer replaceable unit, on-site support and services

INCLUSION:

QTY	UNIT	ITEM	DESCRIPTION
1	pc	POWER SUPPLY:	Hot swappable power supply
1	pc	MODULE	Connector for PoE Power Module
5	pax	TRAINING:	Certificate of Reservation to ICT Training - 5pax inclusion of meal and accommodation (indoor/outdoor)

REFERENCE NO: B.5
CATEGORY: HARDWARE - B. Network Security and Switches

QUANTITY	ITEM	CLASSIFICATION
2	Network	NETWORK CABINET (6U Switch Rack)

TECHNICAL SPECIFICATION:

CABINET TYPE:	6U Wall Mounted Network Rack Cabinet
RACK TYPE:	Glass Enclosure with Aircon duct hole at the back with intake fan
RACK HEIGHT:	6U
RACK DEPT:	Shallow
MAX DEVICE DEPT (cm):	41.94
DEVICE COMPATIBILITY:	Patch Panel, Network Switch, UPS
COLOR:	Black
FRONT PANEL:	Tempered Glass Door with keylock
GROUNDING LUG:	Front and Back door frames
BUILT-IN CABLE:	Yes
EXTRA WIDE:	Yes
COOLING FAN:	Cabinet Top with on/off switch to be use as redundant backup if aircon supply fails
RACK SENSOR:	Environmental Temperature heat/fire sensor
POWER OUTLET UNITS:	30A, Single Phase, 4 Standard AC-Power Plug, 100-240V
STANDARD COMPLIANCE:	RoHS, UL/CSA 60950-1 IEA-310-E, IP20 Protecting Rating

Warranty: standard manufacturer warranty, customer replaceable unit, on-site support and services, initial installation and setup.

INCLUSION:

QTY	UNIT	ITEM	DESCRIPTION
2	pc	Patch Panel	Cat6 - 24 Port Network Patch Panel Compatible to 6U racks Future-proof your network connection for 10-Gigabit Ethernet with this durable RJ45 patch panel Gold plated contacts ensure a correction free connection. Numbered ports and color-coded T568A and T568B Network patch panel complies with the UL fire safety requirement (E486099)
50	pc	CAGENUT	M5 Rack Mounted Cagenuts and Screws
20	pc	RJ45 Passthrough	Cat6 RJ-45 Connector Passthrough type, Clear Polycarbonate
100	pc	RJ45 Clear Connector	Ethernet Connector: RJ45 Gender: Male LAN Category: Cat 5e/6a Number of ways: 8 Shield Type: UTP Orientation: Straight Length: 13.71mm Depth: 42.4mm Contact Material: Copper Alloy Contact Plating: Gold

REFERENCE NO: B.6
CATEGORY: HARDWARE - B. Network Security and Switches

QUANTITY	ITEM	CLASSIFICATION
1	Network	NETWORK & SERVER STEEL CABINET

TECHNICAL SPECIFICATION:

CABINET TYPE:	Network Cabinet IP54 with Roof-Mounted Cooling Unit Compatible to all network switches 24/48 ports standards, Levelling Feet
DESCRIPTION	IP54 with side-mounted cooling solution, 3 power levels, 1.0-1.9 kW cooling capacity Cooling device for Industrial purposes at high environmental temperature up to +55 degree Celsius, Industrial-qualified steel sheet housings Elektromechanical thermostat and fault indicating contact Temperature selection directly at the device Hose for controlled condensate drain ensures protection of equipment in the cabinet from moisture, Air handling unit (2U above) allows the specific routing of the cold air in front of the 19" level, Supplied completely ready-for-installation including prepared cabinet with all openings, sealing's, cables etc.
FRONT DOOR:	Front door with window made of certified safety glass Profile half-cylinder locking
KEYBOARD DRAWER:	Lockable Keyboard Drawer 2U, pullout on telescopic rails, USB, layout:English US 101 keys with padded palm layer.
MONITOR:	Pull-out shelf depth adjustable 1U for monitor and keyboard
VENTILATION:	Roof Fan with 2 fans 1U Blind Panels for side-mounting - 2 panels in set, serves as blinding and control of the air flow
TEMPERATURE CONTROLLER:	rack mounted 1U, Digital temperature display, Output: 2 relais, dry, programmable 250V AC/2A, Display of relay status, Type of sensor: diode, cable length 3m
LIGHTNING UNIT:	19" Comfort 1U, 2spotlight each, front-sided on/off switch touch-proof housing, power supply via power cord power supply: 230V, 50Hz
CABLE TRAY:	Vertical Cable Management Panel for side-mounting 2 pieces in set 19" Cable Routing Panel for orderly and clear cable routing 3 unit of 40x40mm Cable Routing Bracket 3 unit of 80x80 40x40mm Cable Routing Bracket 3 unit of 85x250 40x40mm Cable Routing Bracket
NOISE:	Noise level 67 dB(A)
POWER SUPPLY:	230V/50Hz, Earthling Cables 5meter
STANDARD COMPLIANCE:	RoHS, UL/CSA 60950-1, IEA-310-E, IP20 Protecting Rating

Warranty: standard manufacturer warranty, customer replaceable unit, on-site support and services, initial installation and setup.

INCLUSION:

QTY	UNIT	ITEM	DESCRIPTION
2	pc	Smoke Detector	Optical Smoke Detector IP40, Measuring Range VdS G29219 Approval
2	pc	Temp Sensor	Temperature Sensor Analog, Measuring Range 50°C
1	set	Blind Panels	For Side-Mounting, for covering the area on the side of the 19" profiles in 42U 800mm width network-and server cabinets Serves as blinding and control of the air flow Mounting left and sided possible
4	pc	Network Patch Panel	19-inch Cat56-Cat6 110-Type Patch Panel For TIA/EIA-T568B/A wiring configuration
2	pc	Cable Panel	19" Cable Routing Panel 1U with front-sided cover color: deep black
2	pc	Cable Panel	19" Cable Routing Panel 2U with front-sided cover color: deep black

REFERENCE NO: B.7
CATEGORY: HARDWARE - B. Network Security and Switches

QUANTITY	ITEM	CLASSIFICATION
1	Network Storage	NETWORK ATTACHED STORAGE

TECHNICAL SPECIFICATION:

CPU:	Intel 2.9~3.2 Ghz or above
MEMORY:	4~8GB DDR4 expandable up to 16GB
HARDWARE:	Manufacture Built-in encryption
DRIVE:	2~4bay hot swappable drive bay, SSD Support RAID Technology
EXTERNAL PORT:	3.0 USB port, eSATA port
STORAGE CAPACITY:	10-30TB
LAN PORT:	10/100/1000BaseT, Wake on LAN/WAN, Schedule power on/off
COMPATIBILITY:	All Microsoft Windows Operating System
VOLTAGE INPUT:	AC power voltage 100-240 VAC
SYSTEM FAN:	Built-in
COMPATIBILITY:	Microsoft Windows Server Multi-languange Red Hat Enterprise Linux
REMOTE MANAGEMENT SOFTWARE:	Web-based GUI Management Console
FORM FACTOR:	Desktop

Warranty: standard warranty, customer replaceable unit, on-site support and services

REFERENCE NO: B.8
CATEGORY: HARDWARE - B. Network Security and Switches

QUANTITY	ITEM	CLASSIFICATION
1	Network	WIRELESS ROUTER

TECHNICAL SPECIFICATION:

ENVIRONMENT:	Indoor
SIMULTANEOUS DUAL-BAND:	Yes
RADIO RATE:	2.4 GHz – 450Mbps 2.4 and 5GHz MIMO – 3x3 5 GHz – 1300Mbps
SECONDARY ETHERNET PORT:	Yes
LOUDSPEAKER:	Built-in
PoE MODE:	802.3at PoE+
FORM FACTOR:	Wall Mount, Ceiling Mount
WIRELESS UPLINK:	Yes
NETWORK INTERFACE:	10/100/1000 Ethernet Ports 10Gbps Ethernet Ports
POWER METHOD:	802.3 af PoE , Input Voltage: 220AC Volt
WIFI-STANDARD:	802.11 a/b/g/n/r/k/v/ac
WIRELESS SECURITY:	WEP, WPA-PSK, WPA-Enterprise (WPA/WPA2,TKIP/AES)
BSSID:	8~32 Radio
STANDARD:	802.11ac Data Rates -6.5Mbps to 867 Mbps 802.11n Data Rate 6.5Mbps to 300 Mbps 802.11a Data Rate 54Mbps 802.11g Data Rate 54 Mbps 802.11b Data Rate 11 Mbps
TRAFFIC MANAGEMENT:	VLAN 802.1Q, Advance QoS, Guest Traffic Isolation, WMM, Concurrent Clients 250+
REMOTE MANAGEMENT:	Web based Console Administration
PoE OUT:	48V Pass-Through
CERTIFICATION:	CE, FC, IC DFS Certification
COMPATIBILITY:	Support All Windows Support Connection to Network Core, Distribution Switches

Warranty: standard warranty, customer replaceable unit, on-site support and services

INCLUSION:

QTY	UNIT	ITEM	DESCRIPTION
5	pc	MOUSE:	Design: Wireless type, 1000 DPI Laser Grade Optical Sensor, Black Connection: Bluetooth, Wireless range 10meter, battery operated Compatible: All Windows Operating System
5	pax	TRAINING:	Certificate of Reservation to Training or Webinar - 5pax inclusion of meal and accommodation (indoor/outdoor)

Name and Signature of Authorized Representative

Company Name

Date Signed

Technical Specifications (LOT 4)

Item	Specification	Statement of Compliance
		<p><i>[Bidders must state here either “Comply” or “Not Comply” against each of the individual parameters of each Specification stating the corresponding performance parameter of the equipment offered. Statements of “Comply” or “Not Comply” must be supported by evidence in a Bidders Bid and cross-referenced to that evidence. Evidence shall be in the form of manufacturer’s un-amended sales literature, unconditional statements of specification and compliance issued by the manufacturer, samples, independent test data etc., as appropriate. A statement that is not supported by evidence or is subsequently found to be contradicted by the evidence presented will render the Bid under evaluation liable for rejection. A statement either in the Bidder's statement of compliance or the supporting evidence that is found to be false either during Bid evaluation, post-qualification or the execution of the Contract may be regarded as fraudulent and render the Bidder or supplier liable for prosecution subject to the applicable laws and issuances.]</i></p>

	PR 1689 LSD NSHP	
1	DIGITAL PABX	
	SCALABLE MANAGEMENT SYSTEM:	
	Manufacture SDN Software	
	Line Extension Management	
	Unified Operating Management	
	Comprehensive Call logs	
	Advance Interactive A.I. Receptionist Features	
	CONNECTIVITY:	
	10/100/1000 Mbps Ethernet Port	
	Analog Telephone Port or Adapter	
	IP Phone (SIP)	

	Digital Key Phone	
	Singe Line Telephone (SLT)	
	PSTN (Public Switch Telephone Network	
	IP/DIGITAL OPERATOR CONSOLE: Compatible with IP and Digital Key Phone	
	Alphanumeric Dial Pad Keys	
	Fixed Function Keys (Conference, Redial, Transfer)	
	Built-in LED Display	
	Message Wait and Ringer Lamp	
	Headset Interface Port 3.5mm, USB Port	
	High Quality Full Duplex Speaker Phone	
	Adjustable Desk Stand	
	20-40 Programmable Keys	
	INTERNET SECURITY/GATEWAY APPLIANCE: Connection speed and duplex mode	
	Voltage Input 100-240VAC	
	Network/VLAN Setting	
	Form Factor - Rack Mounted	
	Network Interface 10/100/1000 RJ45 Lan Ports	
	10/100/1000 RJ 45 WANT Ports	
	1/10G SFP + LAN Port and WAN Port	
	IDS/IPS Throughput >= 3.5 Gbps	
	System Memory >= 4GB,	
	On-Board Flash Storage 32 GB eMMC	
	CERTIFICATION: Certification CE, FCC IC	
	SYSTEM FAN: Built-in with redundant	
	AC VOLTAGE INPUT: 220v	
	Inclusion:	
	SIP ACCOUNT 30 users for SIP Account	
	HEADSET Customer Center headset for front desk with microphone and wireless compatible to Digital PABX	
	TRAINING: Certificate of Reservation to Training or Webinar - 5pax inclusion of meal and accommodation (indoor/outdoor)	
2	TELEPHONE VOIP UNIT	
	DISPLAY SCREEN: 5-inch to 10-inch (Diagonal), Multi- touch, Full Color 1080p	
	LED INDICATOR: Power LED, Green, Amber, Standby	
	HANDSET: Dynamic receiver 32 ohm/101 dB/ 30mW	
	Microphone Omni-Directional /-36 dB/2.2K ohm	
	ECHO CANCELLATION: DSP Removing Ambient Noise	
	Acoustic Echo	
	POWER INPUT: PoE 802.3af standard	
	HANDS-FREE SPEAKER: mono/stereo	
	HANDS-FREE MICROPHONE Omnidirectional mono/stereo microphone Bluetooth wireless	
	CONNECTIVITY: 10/100/1000 Ethernet Ports USB 2.0, 3.0, Micro-USB Port, Bluetooth	
	HEADSET SUPPORT: 3.5mm Audio Jack Bluetooth headset	
	OPERATION BUTTON: Volume up/down Media detection Touch screen display	

	HARDWARE: Processor, Storage 10GB, RAM 8GB	
	VOICE CODEC: G.722/Speex/iLBC/PCMU.PCMA/GSM	
	SOFTWARE: Android, Manufacture Communicator Software	
	COMPATIBILITY: Minimum Windows 10 Compatible to DIGITAL PABX (Reference C.1)	
	CERTIFICATION: Broadsoft/FlowRoute/PBXRealtime, CE, FCC IC	
	SYSTEM FAN: Built-in with redundant	
	Inclusion:	
	HEADSET Compatible to Reference No. C.1 (Digital PABX) Telephone Voip Unit requirements	
	RJ45 Patch Cable Compatible to Telephone Voip Unit requirements, 2meters	
	2021-07-1190/LSD/NSHP	
3	USB 3.1 256GB Flash Drive	
4	USB 3.0 Hub, 4-Port	
5	External Hard Drive, 2TB Capacity	
6	Type C to USB Coverter	
7	Extension Cord, Universal Outlet, 6 Gang	
8	4K USB Webcam with HDR	
9	Powerbank, 20,000 mah	
10	Baby Jack Headset with microphone	
11	VideoCard: HD7730 2GB DDR5	
12	Memory: RAM 8GB DDR4 2133	
13	Power Supply: Rave 80 Plus 600 watts	
14	USB External DVD Rewritable Drive	
15	Wireless Presenter Device with laser pointer	
16	USB Extender 3.2 Gen 1 (5Gbps) 15meters	
17	HDMI Extender, 4k Resolution	
18	Intel Gigabit Ethernet Adapter	
	- Data Rate Per Port 10/100/1000 Mbps.	
	- Speed & Slot Width 2.5 GT/s, x1 Lane.	
19	PCI Dual Band WiFi Adapter	
	- IEEE 802.11ac Standard	
	- 2.4-5Ghz upto 867Mbps speed	
	- support WiFi Protocols	
	- high performance two-way transmission	
	- windows compatible	
20	Solid State Drive (SSD) 2.5-inch 1TB	
21	Solid State Hybrid Drive (SSHHD) 3.5-inch 1TB	
22	100-inch Motorized HD Projector Screen	
23	Cat6 RJ45 Ethernet Patch cable (6" inch)	
24	Cat6 RJ45 Ethernet Patch cable (0.3m/1ft)	
25	Cat6 RJ45 Ethernet Patch cable (3m/10ft)	
26	RJ45 Rubber Boots	
27	RJ45 Connector	
28	UTP Cat6 Ethernet Cable	
29	Network Microscanner video, data and voice wiring	
	2021-07-1189/LSD/NSHP	
30	Mobile Phone Screen: AMOLED Display OS: Android 11 Chipset: must be Snapdragon 660-680 CPU: Octacore RAM: 6GB Storage: 128GB Capacity Camera: must be 48mp rear and 13mp front	

	<p>Sim Card: Dual (Nano Sim) Network: 4G LTE Battery: min of 4500mAh Li-Po battery</p>	
	2021-1687/LSD/NSHP	
31	<p>PROJECTOR FORM TYPE: Desktop, Tabletop digital with remote control BASIC FUNCTION: Freeze; Output Source Auto Select; Image Brightness Adjustment/Control; Auto-Detect Aspect Ratio EXTENDED FUNCTION: Still Image Capture; Video Capture; Digital Scroll/Pan/Tilt; Image File Play/Slideshow; Split Screen CAMERA: With Optical Zoom, Camera Sensor 1/2.7 inch CMOS Sensor ILLUMINATION: LED Bulb PIXELS: 5MP~16MP (1920x1080 pixels) FRAME-PER-SECONDS (FPS): 30-40 ZOOM: 10x, 12x, 20x, 16x MICROPHONE: built-in OUTPUT RESOLUTION: Full HD (1080p) AV RECORDING: built-in WEIGHT: lightweight (2-3kg) INTERFACE PORT: HDMI, SD, USB-B, VGA, Analog RGB SECURITY: Kensington Lock, Security Lock Hole INPUT VOLTAGE: 100-240ACV CERTIFICATION: TCO Certified</p>	
	<p>With Mouse: USB-wireless mouse, Black, All MS Windows Compatible 3-buttons + 1 wheel for scroll 2.4Ghz wireless with nano-receiver Strong connection for up to 10 meters</p>	
	<p>USB Hub: 4-port USB 3.0 portable hub LED Status Indicators Speed up to 5Gbps</p>	
	<p>Projector Bag: Nylon – Thickly padded projector bag with compartment and slip pocket Air Mesh Technology Design, comfort and breathability</p>	
	<p>Projector holder: Stainless Fabricated Document Projector Holder Wall Mounted to install inside laboratory conference room. Installation of cable tray for electrical and Safety Switch</p>	
	2021-1833/LSD/NSHP	
32	<p>Mobile Tablet CPU: must be atleast Snapdragon 625-660 Core: Octacore System: Android 10 Ram: up to 4GB-6GB ROM: 64 GB or 128 GB</p>	
	<p>Workstation and Laptop Computers with accessories Please see LIMS-Terms of Reference - Annex A for detailed technical specification (Ref. D.1 - D.10)</p>	
33	Workstation Computer	
34	Workstation Computer with Printers	
35	Windows Laptop	
36	Macbook Pro Laptop	
37	Industrial Multi-Function Printer	
38	Portable HD Projector	
39	DSLR Camera with Kit Lens	
40	Video Conferencing Device	

41	Android Tablet	
	<p>NOTE: Must have standard warranty, customer replaceable unit, on-site support and services</p> <p>ATTACHED IS THE ANNEXES FOR SPECIFIC SPECIFICATION PER ITEM (ANNEX A, ANNEX B AND ANNEX D) FOR COMPLIANCE.</p>	
	Compliance with section VI. Schedule of Requirement	

REFERENCE NO:
CATEGORY:

D.1
HARDWARE - D. Workstation and Laptop Computers with accessories

QUANTITY	ITEM	CLASSIFICATION
45	Desktop Computer	WORKSTATION COMPUTER

TECHNICAL SPECIFICATION:

CHIPSET:	Intel
PROCESSOR:	Core i5~Core i7 2.7Ghz~3.7Ghz, 12MB cache
GRAPHICS:	Integrated Intel UHD Graphics
MEMORY:	8~16GB, DIMM Socket, DDR4
STORAGE:	SSD 500GB~1TB
CPU DIMENSION:	less than or equal to Height (14-inch), Width (4-inch) Depth (13-inch)
WEIGHT:	less than or equal to 7.0kg
NETWORK:	Onboard GbE Ethernet LAN Port Supports Wake-OnLAN,
WIRELESS:	Built-in Intel Wireless AC (WiFi) Technology
PORTS:	Front Ports: USB 3.1, 2.0 Microphone, Headset Rear Ports: USB 3.1, 2.0, Display Port, HDRMI, Serial, Gigabit Ethernet, Audio Line-out.
FORM FACTOR:	Mini-tower
POWER SUPPLY:	400W or equivalent – 220ACv
CERTIFICATION COMPLIANCE:	HyperWorks, Microstation, GreenGuard, 80PLUS Platinum, Energy Star, ISV Certifications, Esri Certification, PLM Certification

Warranty: standard warranty, customer replaceable unit, on-site support and services

INCLUSION:

QTY	UNIT	ITEM	DESCRIPTION
45	pc	KEYBOARD	USB-wired keyboard, Black, US Standard, All MS Windows Compatible QWERTY keys and NUMPAD, Highlighted Common Microsoft Shortcut keys
45	pc	MOUSE	USB-wireless mouse, Black, All MS Windows Compatible 3-buttons + 1 wheel for scroll 2.4Ghz wireless with nano receiver Strong connection for up to 10 meters
45	pc	MONITOR	LED Monitor 27-inch with Built-in Camera, Full HD infrared sensor HD 1080p Resolution, Input Voltage 220ACvolt
45	pc	SPEAKER MICROPHONE	USB Table SPEAKER Microphone with mute function button Wide pick-up distance up to 10meters, with Noise and Echo Cancellation
45	pc	UPS BACK-UP	700VA/420Watts, 4-6 IEC Outlets, Line-Interactive, 3 Outlet with surge protection, Output Voltage-230v, Input Voltage-220v
5	pax	TRAINING:	Certificate of Reservation to Training or Webinar - 5pax Inclusion of meal and accommodation (indoor/outdoor) – if applicable

REFERENCE NO: D.2
CATEGORY: HARDWARE - D. Workstation and Laptop Computers with Accessories

QUANTITY	ITEM	CLASSIFICATION
6	Desktop Computer	WORKSTATION COMPUTER WITH PRINTER

TECHNICAL SPECIFICATION:

CHIPSET:	Intel
PROCESSOR:	Core i5-Core i7, 2.7Ghz~3.7Ghz, 12MB cache
GRAPHICS:	Integrated Intel UHD Graphics
MEMORY:	8~16GB, DDR4
STORAGE:	SSD 500GB~1TB
CPU DIMENSION:	less than or equal to Height (14-inch), Width (4-inch) Depth (13-inch)
WEIGHT:	less than or equal to 7.0kg
NETWORK:	Onboard GbE Ethernet Port Supports Wake-on-LAN Optional for Ethernet adapters Built-in Intel WiFi
PORTS:	USB 2.0, 3.0, HDMI Port Microphone and Headset Port Audio line-out
FORM FACTOR:	Mini-tower
CERTIFICATION COMPLIANCE:	HyperWorks, Microstation, GreenGuard, 80PLUS Platinum, Energy Star, ISV Certifications, Esri Certification, PLM Certification

Warranty: standard warranty, customer replaceable unit, on-site support and services

INCLUSION:

QTY	UNIT	ITEM	DESCRIPTION
6	pc	PRINTER	Desktop Printer Multi-Function Printer (Print, Scan, Copy) A4, Legal Size Paper tray Ink Bottle/Cartridge Type – Black, Cyan, Magenta, Yellow Input voltage 220v
6	pc	KEYBOARD	USB-wired keyboard, Black, US Standard, All MS Windows Compatible QWERTY keys and NUMPAD, Highlighted Common Microsoft Shortcut keys
6	pc	MOUSE	USB-wireless mouse, Black, All MS Windows Compatible 3-buttons + 1 wheel for scroll 2.4Ghz wireless with nano receiver Strong connection for up to 10 meters
6	pc	MONITOR	LED Monitor 27-inch Built-in Camera, Full HD infrared sensor, HD 1080p Resolution
6	pc	SPEAKER MICROPHONE	USB Table SPEAKER Microphone with mute function button Wide pick-up distance up to 10meters, with Noise and Echo Cancellation
6	pc	UPS BACK-UP	700VA/420Watts, 4-6 IEC Outlets, Line-Interactive, 3 Outlet with surge protection, Output Voltage-230v, Input Voltage-220v

REFERENCE NO: D.3
CATEGORY: **HARDWARE - D. Workstation and Laptop Computers with accessories**

QUANTITY	ITEM	DESCRIPTION
1	Laptop	WINDOWS LAPTOP

TECHNICAL SPECIFICATION:

CHIPSET:	Intel
PROCESSOR:	Intel Core i7~i9, 3.0Ghz and above, 9thGen higher Compliant to multi-threaded performance
DISPLAY:	13~14" diagonal LED Anti-Glare Intel/Nvidia/Radeon Graphics Technology
GRAPHICS:	Integrated Intel UHD Graphics
MEMORY:	8~16GB, DDR4
STORAGE:	1TB TLC SSD
WEIGHT:	1~2 kg / 4 pounds
NETWORK:	100/1000Mbps/10Gbps 802.3ae Ethernet RJ-45 Port Auto-sensing USB-Ethernet Port Adapter
KEYBOARD:	Clickpad, Spill-Resistant, US 101 English Qwerty type
WIRELESS TECHNOLOGY:	Bluetooth 5.0 combo compliant with 802.11 b/g/n/ac standard
MOBILE BROADBAND:	4~5G LTE-Advanced Mobile Broadband
AUDIO:	Dual-stereo speakers multi array microphone
PORTS:	USB-type-C, USB 3.1, headphone/microphone combo, HDMI 2.0
CERTIFICATION:	AMT SSL Certificate compliant to Intel vPro technology EPAT Registration Energy Start Qualification and TCO Certification Manufacturer Noise Cancellation Software Compliant to multi-threaded Performance

Warranty: standard warranty, customer replaceable unit, on-site support and services

INCLUSION:

QTY	UNIT	ITEM	DESCRIPTION
1	pc	MOUSE:	USB-wireless mouse, Black All MS Windows Compatible 3-buttons + 1 wheel for scroll 2.4Ghz wireless with nano receiver Strong connection for up to 10 meters
1	pc	LAPTOP BACKPACK:	Nylon Materials - Thickly padded laptop with 13~14 inch display Compartment with 10" tablet sleeve / slip pocket / pen loops / zippered compartment / Air Mesh Technology Design for comfort and Breathability
1	pc	CHARGER:	Compatible portable laptop charger for travel
1	pc	PORTABLE SCREEN:	Portable Green Screen 142cm double-sided with case Hook-n-loop straps allow to secure connection to the chair Green background made of Polyester Fabric, Flexible metals shape, collapsible
1	pc	OPERATING SYSTEM:	Windows 10 Professional English x64Edition with DVD Installation DISK and Serial Key sticker, OEM License
1	pc	MS OFFICE:	Microsoft Office 2016 Pro Plus US-English, x64Edition with DVD Installation DISK and Serial Key sticker, OEM License

REFERENCE NO: D.4
CATEGORY: **HARDWARE - D. Workstation and Laptop Computer with accessories**

QUANTITY	ITEM	DESCRIPTION
2	Laptop	WINDOWS LAPTOP

TECHNICAL SPECIFICATION:

CHIPSET:	Intel
PROCESSOR:	Intel Core i7~i9, 3.0Ghz and above, 9thGen higher Compliant to multi-threaded performance
DISPLAY:	15~17" diagonal LED Anti-Glare, Intel Nvidia/Radeon Graphics Technology
GRAPHICS:	Integrated Intel UHD Graphics
MEMORY:	8~16GB, DDR4
STORAGE:	1TB TLC SSD
WEIGHT:	1~2 kg / 4 pounds
NETWORK:	100/1000Mbps/10Gbps 802.3ae Ethernet RJ-45 Port, Auto-sensing, USB-Ethernet Port Adapter
KEYBOARD:	Clickpad, Spill-Resistant, US English Qwerty Type 101
WIRELESS TECHNOLOGY:	Bluetooth 5.0 combo compliant with 802.11 b/g/n/ac standard
AUDIO:	Dual-stereo speakers Multi array microphone
PORTS:	USB-Type-C, USB 2.0, 3.0, Headphone/Microphone Combo, HDMI 2.0
INPUT VOLTAGE:	AC 220v
CERTIFICATION:	AMT SSL Certificate compliant to Intel vPro technology EPAT Registration Energy Start Qualification and TCO Certification Manufacturer Noise Cancellation Software Compliant to multi-threaded Performance

Warranty: standard warranty, customer replaceable unit, on-site support and services

INCLUSION:

QTY	UNIT	ITEM	DESCRIPTION
2	pc	MOUSE:	USB-wireless mouse, Black, All MS Windows Compatible 3-buttons + 1 wheel for scroll 2.4Ghz wireless with nano receiver Strong connection for up to 10 meters
2	pc	LAPTOP BAG:	Nylon - Thickly padded laptop with up to 15~17 inch display Type: Backpack Compartment with 10" tablet sleeve / slip pocket / pen loops / zippered compartment / Air Mesh Technology Design for comfort and Breathability
2	pc	PORTABLE SCREEN:	Portable Green Screen 142cm double-sided with case Hook-n-loop straps allow to secure connection to the chair Green background made of Polyester Fabric, Flexible metals shape, collapsible
2	pc	OPERATING SYSTEM:	Windows 10-English x64Edition with DVD Installation DISK and Serial Key sticker, OEM License
2	pc	MS OFFICE:	Microsoft Office 2016 Pro Plus US-English, x64Edition with DVD Installation DISK and Serial Key sticker, OEM License

REFERENCE NO: D.5
CATEGORY: HARDWARE - D. Workstation and Laptop Computers with accessories

QUANTITY	ITEM	DESCRIPTION
1	Laptop	MAC BOOK PRO

TECHNICAL SPECIFICATION:

CHIP:	Apple M1 Chip, 8-Core CPU
DISPLAY:	14"~17", LED-backlit display with IPS Technology 2560-1600 resolution
BATTERY:	Up to 15~18 hours' wireless web Lithium-polymer battery
MEMORY:	8GB expandable to 16GB
STORAGE:	512 GB SSD configurable to 1TB SSD
KEYBOARD:	Backlit Magic Keyboard (U.S.) 101 Keys
TOUCH ID:	Touch ID Sensor
WIRELESS:	Wi-Fi 802.11ax Wi-Fi 6 IEEE 802.11 a/b/g/n/ac compatible Bluetooth 5.0 Wireless Technology
CAMERA:	720p-1020p FaceTime HD Camera
VIDEO SUPPORT:	VGA, HDMI, DVI port
AUDIO:	Stereo Speaker, Three-mic array, 3.5mm headphone jack
INPUT VOLTAGE:	100-240ACV
CERTIFICATION:	Mac Environmental Compliance

Warranty: standard warranty, customer replaceable unit, on-site support and services

INCLUSION:

QTY	UNIT	ITEM	DESCRIPTION
1	pc	MOUSE:	USB-wireless mouse, Black, All MS Windows, Mac OS Compatible 3-buttons + 1 wheel for scroll 2.4Ghz wireless with nano receiver Strong connection for up to 10 meters
1	pc	LAPTOP BACKPACK:	Nylon - Thickly padded laptop with up to 14~17 inch display Compartment with 10" tablet sleeve / slip pocket / pen loops / zippered compartment / Air Mesh Technology Design for comfort and Breathability
1	pc	PORTABLE SCREEN:	Portable Green Screen 142cm double-sided with case Hook-n-loop straps allow to secure connection to the chair Green background made of Polyester Fabric, Flexible metals shape, collapsible
1	pc	OPERATING SYSTEM:	Latest Update for Mac IOS License with Installation Disk and Registration Papers.
1	pc	MS OFFICE:	Microsoft Office 2016 Pro Plus US-English for Mac with DVD Installation DISK and Registration Papers.

REFERENCE NO: D.6
CATEGORY: D. Workstation and Laptop Computers with accessories

QUANTITY	ITEM	CLASSIFICATION
1	Multi-Function Printer	INDUSTRIAL MFP PRINTER

TECHNICAL SPECIFICATION:

GENERAL TYPE:	MULTI-FUNCTIONAL (MFP) PRINTER
PROCESSOR:	Intel, Coretex, AMD
RAM:	2~8GB
STORAGE:	10~50GB
FUNCTION:	Print, Scan, Copy
SCAN FUNCTIONALITY:	Scan-to-e-mail (SMTP) Scan-to-FTP (FTP over SSL) Scan-to-SMB, Scan to USB Host TWAIN scan (USB, network), WSD (WIA) scan (USB, network)
SCAN RESOLUTION:	600, 400, 300, 200 dpi (256 grey scales per color)
SCAN FILE TYPE:	TIFF, PDF, PDF/A, high compression PDF, encrypted PDF, JPEG, XPS
PAPER SIZE:	A4, A5, A6, B5, B6, Letter, Legal, Custom (105 x 148 mm – 216 x 356 mm)
PAPER FEEDER:	Yes
DUPLEX:	Double-sided printing: 60 – 120 g/m ² ; A4, A5, B5, Letter, Legal
COMPATIBILITY:	All Microsoft Windows Operating System
SPEED:	Up to 26~30 pages per minute in color and black and white
DISPLAY CONTROL PANEL:	Touchscreen, color display 7~15 inch screen
RESOLUTION:	1,200 x 1,200 dpi print at reduced speed, multibit technology for print quality of up to 9,600 x 600 dpi (print), 600 x 600 dpi, 256 greyscales per color (scan/copy)
DIMENSION:	400 x 500 x 200 mm
INTERFACE:	USB 2.0 (Hi-Speed) USB Host Inter-face Gigabit Ethernet 10BaseT/100BaseTX/1000BaseT) Wireless LAN, Slot for optional SD/SDHC-Card
CARTRIDGE SUPPLY TYPE:	Toner
PAPER CAPACITY PER TRAY:	400~600 sheets
CERTIFICATION:	BLI Certificate Energy Star Certificate ISO/IEC 24734 ISO/IEC 19798

Warranty: standard warranty, customer replaceable unit, on-site support and services

INCLUSION:

QTY	UNIT	ITEM	DESCRIPTION
20	pc	TONER Black	Equivalent to printer model
20	pc	TONER Magenta	Equivalent to printer model
20	pc	TONER Cyan	Equivalent to printer model
20	pc	TONER Yellow	Equivalent to printer model
5	pc	MOUSE:	USB-wireless mouse, Black, All MS Windows Compatible 3-buttons + 1 wheel for scroll 2.4Ghz wireless with nano receiver Strong connection for up to 10 meters

REFERENCE NO: D.7
CATEGORY: **HARDWARE - D. Workstation and Laptop Computer with accessories**

QUANTITY	ITEM	DESCRIPTION
2	Portable Projector	PORTABLE HD PROJECTOR

TECHNICAL SPECIFICATION:

FORM TYPE:	Desktop, Table-top
COLOR:	White, Black
DISPLAY TYPE:	DLP - with Remote Control for operation
SCREEN SIZE:	60"- 140"
ASPECT RATIO:	16:9/Original 4:3 Vertical Zoom
BRIGHTNESS:	Up to 15000 ANSI Lumens
CONTRAST RATIO:	150,000 : 1
NOISE:	25/28/30dB(A)
TRUMOTION:	Yes
WEB OS:	Yes
NATIVE RESOLUTION:	4K UHD (3840 x 2160)
PROJECTION IMAGE:	100" @11.2ft (1.25x) ~ 8.9ft (1.0x)
ZOOM:	x 1.25
LIGHT SOURCE:	4Ch LED
LAMP LIFE:	Up to 30,000 hrs
HDR	HDR10
COMPATIBILITY:	All Windows Operating System
INPUT VOLTAGE:	100-240ACV
CERTIFICATION:	TCO Certified ISO-21118-2012

Warranty: standard warranty, customer replaceable unit, on-site support and services

INCLUSION:

QTY	UNIT	ITEM	DESCRIPTION
5	pc	MOUSE	USB-wireless mouse, Black, All MS Windows Compatible 3-buttons + 1 wheel for scroll 2.4Ghz wireless with nano receiver Strong connection for up to 10 meters
5	pc	KEYBOARD	Black - US English QWERTY Type, Built-in large touchpad for mouse Height: 139.9 mm, Width: 354.3 mm, Depth: 23.5 mm Weight: 390 g (with batteries) Unifying protocol (2.4Ghz) Wireless range >10m Support: Computers, Phones, tablets USB - Wireless Connection
1	pc	PROJECTOR BAG	Nylon Materials - Black Thickly padded projector bag with compartment and slip pocket Airmesh Technology Design, comfort and breathability
5	pax	TRAINING	Certificate of Reservation to ICT Training 5 pax inclusion of meal and accommodation (indoor/outdoor)

REFERENCE NO: D.8
 CATEGORY: HARDWARE - D. Workstation and Laptop Computers with accessories

QUANTITY	ITEM	CLASSIFICATION
lot	Hardware	DSLR CAMERA WITH KIT LENS

TECHNICAL SPECIFICATION:

CAMERA FORMAT:	Full-Frame (1x Crop Factor)
PIXELS:	Actual: 31.7 Megapixel
RESOLUTION:	6720 x 4480
ASPECT RATIO:	1:1, 3:2, 4:3, 16:9
SENSOR TYPE:	CMOS
SENSOR SIZE:	36 x 24 mm
IMAGE FILE FORMAT:	JPEG, Raw
ISO SENSITIVITY:	Auto, 100 to 32000 (Extended: 50 to 102400)
SHUTTER SPEED:	1/8000 to 30 Seconds
WHITE BALANCE:	Auto, Cloudy, Color Temperature, Custom, Daylight, Flash, Fluorescent (White), Shade, Tungsten
CONTINUOUS SHOOTING:	(Raw) / Unlimited Frames
SELF-TIMER:	2/10-Second Delay
RESOLUTION:	1,620,000 Dot
DISPLAY TYPE:	Fixed Touchscreen LCD
MAX SYNC SPEED:	1/200 Second
MEDIA/MEMORY CARD SLOT:	Slot 1: SD/SDHC/SDXC (UHS-I) Slot 2: CompactFlash (UDMA 7)
WIRELESS:	Wi-Fi
GPS:	Yes
BATTERY:	1 x LP-E6N Rechargeable Lithium-Ion, 7.2 VDC, 1865 mAh

Warranty: standard warranty, customer replaceable unit, on-site support and services

INCLUSION:

QTY	UNIT	ITEM	DESCRIPTION
1	pc	KIT LENS	24-70mm f4 Lens Focal Length: 24 to 105mm Maximum Aperture: f/4 Minimum Aperture: f/22 Angle of View: 84° to 23° 20' Maximum Magnification: 0.23x Minimum Focus Distance: 1.48' / 45 cm Optical Design: 17 Elements in 12 Groups Diaphragm Blades: 10, Rounded Focus Type: Autofocus Image Stabilization: Yes Filter Size: 77 mm (Front)
1	pc	Bag	Polyester Materials - Black Thickly padded DSLR bag with compartment and slip pocket Airmesh Technology Design, with shoulder hand carry sleeve comfort and breathability
2	pcs	Battery	LP-E6N Rechargeable Lithium-Ion, 7.2 VDC, 1865 mAh
1	unit	Camera Gimbal	Gimbal Number of Axes 3-Axis (Pitch, Roll, Yaw) Rotation Range Yaw (Pan): 360° Pitch (Tilt): -240 to 95° Roll: -112 to 214° Load Capacity 6.6 lb / 3 kg Connectivity Ports 3 x USB Type-C

			<p>Wireless Frequency 2.4 GHz (2.4 - 2.483)</p> <p>Wireless Protocol Bluetooth 5.0</p> <p>Battery</p> <p>Battery Type 2 x 18650</p> <p>Capacity (mAh) 3400 mAh</p> <p>Capacity (Wh) 24.48 Wh</p> <p>Battery Runtime 14 Hours</p> <p>Environmental</p> <p>Operating Temperature -4 to 113°F / -20 to 45°C</p> <p>General</p> <p>Materials Aluminum</p> <p>Mounting 1 x 1/4"-20 Female</p> <p>1 x Cold Shoe Mount</p> <p>2 x NATO Rail</p> <p>4 x M4 Female</p> <p>Dimensions 15.7 x 7.3 x 6.9" / 40 x 18.5 x 17.5 cm</p> <p>10.2 x 8.3 x 3" / 26 x 21 x 7.5 cm (Folded)</p> <p>Weight 2.681 lb / 1.216 kg (without Battery)</p> <p>2.906 lb / 1.318 kg (with Camera Plate)</p>
5	pax	TRAINING	<p>Certificate of Reservation to Training</p> <p>Inclusion of meal and accomodation</p>

REFERENCE NO: D.9
CATEGORY: **HARDWARE - D. Workstation and Laptop Computers with Accessories**

QUANTITY	ITEM	CLASSIFICATION
lot	Communication	VIDEO CONFERENCING DEVICE

TECHNICAL SPECIFICATION:

USER INTERFACE:	Gesture-based, multi-touch-capable capacitive touch screen 5-inch color LCD (720x1280 pixel) 9:16 aspect ratio On-screen virtual keyboard, USB type A, USB Micro-B, Bluetooth 5.0 LED multi-colored indicator for mute, power on, standby mode User Interface English International US
CAMERA:	Pan/tilt/zoom camera VGA, DVI, US Supported resolutions and connections Output Resolution HD 1080p (1920x1080) 30~40fps 18X total zoom
EXPANSION SPEAKERPHONE:	Full-duplex Beamforming technology with four omni-directional mics LED Indicator to provide visual alerts when on a call Mute button
AUDIO:	360-degree microphone pick up Loudspeaker Frequency 100-22,000Hz, Volume 92dB 60-70meter/20-30ft microphone pickup range
CODEC:	Supported codec but not limited to G.711, G.719, G.729AB, iLBC (3.33Kbs and 15.2Kbps), Opus (8Kbps-24Kbps) Duplex conversations, acoustic echo cancellation, background noise Suppression-Type 1 compliant IEEE 1329 full duplex. A.I. Noise Block Voice Activity Detection, Comfort noise generation, DTMF tone generation
NETWORK:	Open SIP, Skype for Business, Microsoft teams, Zoom Meeting IETF SIP (RFC 3261 and companion RFCs) SDP Two-Port gigabit Ethernet Switch 10/100/1000Base-TX across LAN in and LAN out, support IEEE 802.3af PSE Wi-Fi network connectivity (802.11x)
MANAGEMENT:	Time and date synchronization using SNTP Manual or dynamic host configuration protocol (DHCP), Web-based remote management and configuration setup FTP/TFTP/HTTP/HTTPS server-based central provisioning
SECURITY:	802.x authentication and EAPOL, Media encryption via SRTP Transport layer security (TLS) v1.2, Encrypted configuration files Digest authentication, Password login, Support password for boot server address, Support for signed software executables Wi-Fi encryption: WEP, WPA-Personal, WPA2-Personal, WPA2-Enterprise with 802.1x (EAP-TLS, PEAP-MSCHAPv2), QoS IEEE 802.1x VLAN tagging layer 3 TOS and DSCP, WMM (Wi-Fi multimedia)
POWER:	LAN IN: Built-in auto-sensing IEEE 802.3at, PoE Device (Class4) (requires full Class 4) power input on LAN IN LAN OUT: Built-in auto-sensing IEEE 802.3af power sourcing equipment.
CERTIFICATION:	USB 2.0, 3.0 Compliant UVC-compliant video and audio for broad application

Warranty: standard warranty, customer replaceable unit, on-site support and services

INCLUSION:

QTY	UNIT	ITEM	DESCRIPTION
1	pc	MOUSE:	USB-wireless mouse, Black, All MS Windows Compatible 3-buttons + 1 wheel for scroll 2.4Ghz wireless with nano receiver Strong connection for up to 10 meters

REFERENCE NO: D.10
CATEGORY: HARDWARE - D. Workstation and Laptop Computer with accessories

QUANTITY	ITEM	CLASSIFICATION
10	Communication	ANDROID TABLET

TECHNICAL SPECIFICATION:

DISPLAY SCREEN:	10~10.5" inch
CPU SPEED:	Octa Core 2.0~3.0 Hz
RAM:	8GB~16GB
ROM:	64~128 GB
CONNECTIVITY:	<ul style="list-style-type: none"> • Wi-Fi 802.11 a / b / g / n / ac 2.4G+5GHz, VHT80 • Bluetooth Version Bluetooth v5.0 • Bluetooth Profiles A2DP, AVRCP, DI, HFP, HID, HOGP, HSP, MAP, OPP, PAN, PBAP • Location Technology GPS, Glonass, Beidou, Galileo • PC Sync. Smart Switch (PC version)
NETWORK BEARER:	<ul style="list-style-type: none"> • 2G GSM GSM850, GSM900, DCS1800, PCS1900 • 4G FDD LTE B1 (2100), B2 (1900), B3 (1800), B4 (AWS), B5 (850), B7 (2600), B8 (900), B12 (700), B17 (700), B20 (800), B28 (700), B66 (AWS-3) • 3G UMTS B1 (2100), B2 (1900), B4 (AWS), B5 (850), B8 (900) • 4G TDD LTE B38 (2600), B40 (2300)
INTERNAL STORAGE:	64GB
DISPLAY RESOLUTION:	1080 x 1920p
CAMERA RESOLUTION:	8-16MP AF + 5-8MP (Front)
EXTERNAL MEMORY SUPPORT:	1TB Expandable Memory
THICKNESS:	6~8mm
WEIGHT:	400~500g
DURABILITY:	Metal Body
COLOR OPTION:	Dark Gray, Silver, Gold
AUDIO FORMAT:	MP4, M4V, 3GP, 3G2, WMV, ASF, AVI, FLV, MKV, WEBM
VIDEO FORMAT:	MP3, M4A, 3GA, AAC, OGG, OGA, WAV, WMA, AMR, AWB, FLAC, MID, MIDI, XMF, MXMF, IMY, RTTTL, RTX, OTA
VIDEO PLAYING RESOLUTION:	1920 x 1080 @ 30~60fps
SENSORS:	Accelerometer, Gyro Sensor, Geomagnetic Sensor, Hall Sensor, Light Sensor
S PEN SUPPORT:	Yes, S-PEN must be included
SPEAKER:	Dual Quad Speaker – Dolby Atmos
INPUT VOLTAGE:	220 ACV
BATTERY CAPACITY:	7,040mAh

Warranty: standard warranty, customer replaceable unit, on-site support and services

INCLUSION:

QTY	UNIT	ITEM	DESCRIPTION
2	pc	Tablet Holder	Foldable Adjustable Stainless Tablet wall mounted stand. Functions: Perfect angle of view and enhance the audio/video experience Main Material: Aluminium Alloy , Control mode: Rotatable Sturdy & Rubber Protected: Designed on a low center of gravity makes it stable, and rubber cushions of hooks, bottom protect the phone from scratches and sliding
8	pc	Tablet Case	Genuine Leather Case (Brown and Black Color of choice) - side pocket padfolio organizer

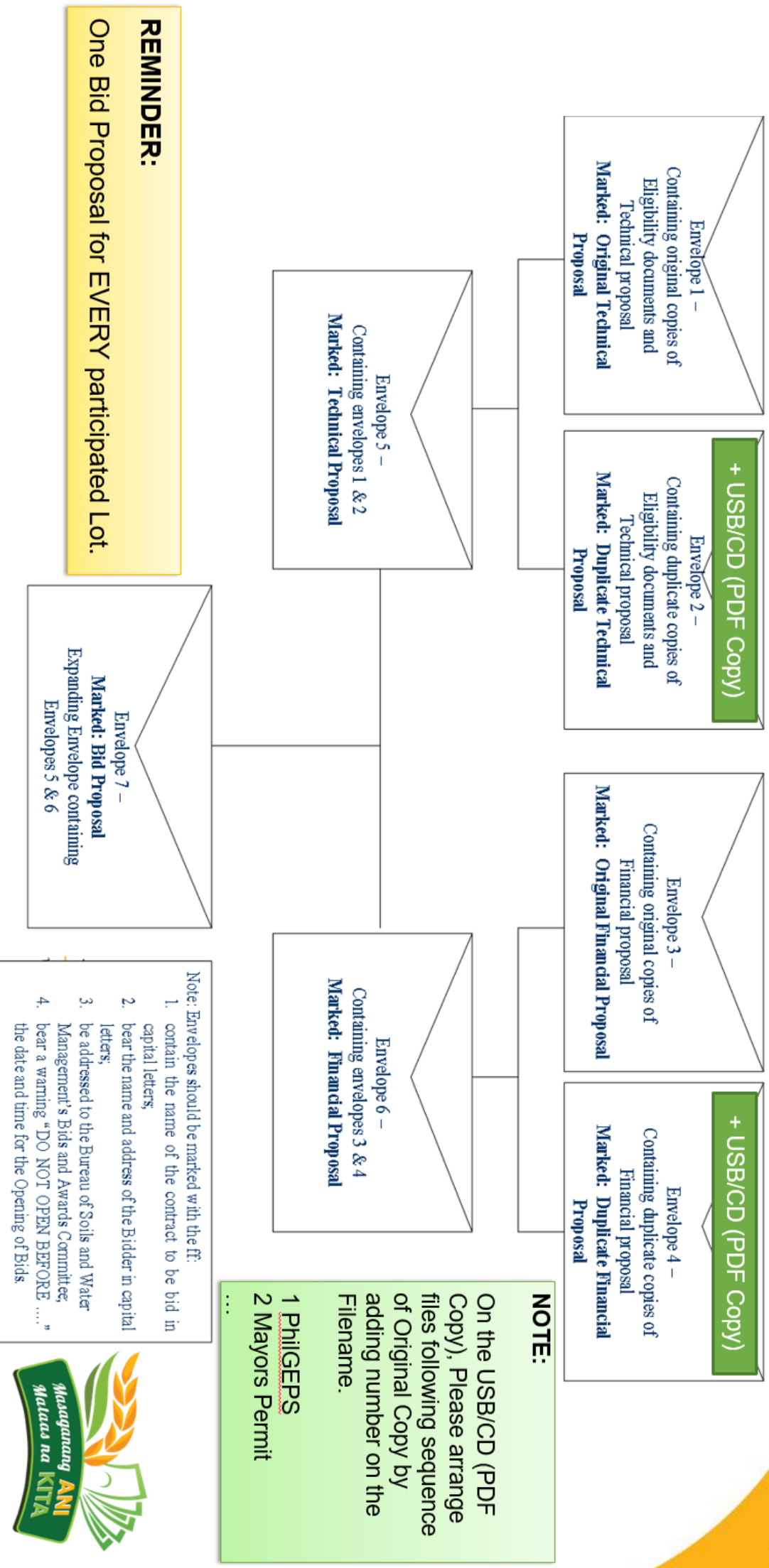
			- S Pen Holder
10	pc	MicroSD	128GB
10	pc	Headset	Earbuds Headphones with Microphone and Volume Control Tablet compatible

Name and Signature of Authorized Representative

Company Name

Date Signed

Sealing and Marking of Bid:



Statement of Single Largest Completed Contract similar to the contract to be bid

Business Name : _____
 Business Address : _____
 Business Contact Nos and Email Address: _____

Name of Contract/Projects	a. Owner's Name b. Address c. Telephone Nos.	Definition/Description of the similar contract	Bidder's Role		a. Contract Date b. Contract Period c. Contract Amount	a. Date Awarded b. Date Started c. Date of Completion
			Description	%		
<u>Government / Private</u>						

Note: The value is adjusted to the current prices using the Philippine Statistics Authority consumer price indices, when necessary;

Note: This statement shall be supported with end user's acceptance or official receipt(s) or sales invoice issued for the contract

 Signature over Printed Name
 [title or other appropriate designation]
 [date of signing]

Statement of All Ongoing Government & Private Construction Contracts including contracts awarded but not yet started

Business Name : _____
 Business Address : _____
 Business Contact Nos and Email Address: _____

Name of Contract/Projects	a. Owner's Name b. Address c. Telephone Nos.	Nature of Work	Bidder's Role		a. Contract Date b. Contract Period c. Contract Amount	% of Accomplishment		Value of Outstanding Contracts	Date of Delivery, if applicable
			Description	%		Planned	Actual		
<u>Government / Private</u>									

Note: This statement shall be supported with Notice of Award.

 Signature over Printed Name
 [title or other appropriate designation]
 [date of signing]

Instructions:

- i. State all ongoing contracts including those awarded but not yet started (government and private contracts which may be similar or not similar to the project being bid).
- ii. If there is no ongoing contract including awarded but not yet started as of the aforementioned period, state none or equivalent term.
- iii. Amount or value of all outstanding or uncompleted portions of the projects under ongoing contracts, including awarded contracts yet to be started, coinciding with the contract to be bid. The total amount of the ongoing and awarded but not yet started contracts should be consistent with those used in the Net Financial Contracting Capacity (NFCC).