Republic of the Philippines
Department of Agriculture
BUREAU OF AGRICULTURAL AND FISHERIES ENGINEERING (BAFE)
Sugar Center, Annex II Building Extension, North Avenue, Diliman, Quezon City
Tel Nos. (02) 8351-8120, 8294-9741
Email add: *bafe@da.gov.ph*

TECHNICAL SPECIFICATIONS

SUPPLY, DELIVERY, INSTALLATION, AND CONFIGURATION OF ICT EQUIPMENT (SERVER SYSTEMS SOLUTIONS)

ABC: **PhP12,199,894.60**

A. RATIONALE

The acquisition of ICT goods under this procurement will establish the BAFE ICT Network Infrastructure that primarily provides high-availability set-up and updated computer (server) resources and storage with a usable capacity of at least 30TB and 10G network connectivity for hosting various Info / App / DB Systems.

The supplier will provide related support to implementation such as technical and administration training, maintenance, and technical support under a 1-year warranty. Including but not limited to the following:

- Phone/Email/Online technical support;
- Hardware Support (8x5, remote);
- On-site Technical Support;
- In-Field hardware parts replacement;
- Free software upgrades; and
- Free training and certification on the related skills or courses may be applied to Server administration, configuration, and network maintenance.

B. SCOPE OF WORK

No.	Description of Requirements
1	To cover the supply, delivery, installation, configuration, training, and testing for the various ICT Equipment (Server Systems Solutions).
2	To conduct standard procedures needed to implement the establishment of server system solutions of the BAFE Office.
3	To provide necessary technical support services and do necessary server migration during the delivery/deployment period.
4	The prospective bidder must conduct a site inspection and survey. A certificate of site survey will be issued by the End-User. Contact Person: **ENGR. JULIUS ABE S. PERALTA** Contact Number: **09271357667** Schedule/Site Inspection Period: **After the Pre-bid Conference (April 11, 2023)** or until **before the Opening of Bids (April 24, 2023)** (Monday to Friday excluding Holiday, 08:00 AM-05:00 PM).

5	To secure requested brand-new pieces of equipment with service and hardware warranty for **at least one (1) year**.
6	To ensure on-site 8x5 next business day onsite support with **four (4) hours** response time technical support.
7	To deliver, install, configure, and test the various ICT Infrastructure at BAFE located in **SRA Compound, North Ave., Diliman, Quezon City**.
8	Delivery installation, and configuration of **Ninety (90) Calendar Days** from the receipt of the Notice to Proceed (NTP).

C. TECHNICAL DESCRIPTION AND COMPLIANCE

ITEM DESCRIPTION	Bidder's Statement of Compliance
1. NETWORK FIREWALL (Next-Generation Firewall – NGFW) ➔ at least 6*10/100/1000 Base-T, 2*1G Fiber SFP Interface and 2*10G Fiber SFP Interface; ➔ *Performance*: 12 Gbps Firewall Layer 3 throughput, Functions Stateful firewall, Distributed denial of Service (DDoS) Prevention, ARP spoofing prevention, Anti-Virus, Anti-Malware, On-premise artificial intelligence-based malware detection engine, Web Application Firewall, Anti-phishing, Intrusion Prevention System, semantic detection method, Secure Socket Layer Decryption, IPsec Virtual Private Network, Secure Socket Layer Virtual Private Network, User authentication and grouping, Web Uniform Resource Locators (URL) filtering, Application control, Bandwidth management; ➔ with 3-year Support-Subscriptions.	
2. MANAGED NETWORK SWITCH ➔ Layer2, 24-ports GbE PoE, Uplink Interfaces: 2x10G SFP+ ports; ➔ should support the existing DA VLAN Trunking Protocol (vtp) switching protocol.	
3. SERVER (HYPER-CONVERGED INFRASTRUCTURE) ➔ high-availability setup (2-Nodes) with minimum Technical Specification of at least 2 x Intel Xeon Gold 6326 2.9Ghz (16-cores), 384GB RAM, 10 X 3.8TB SSD; ➔ raw capacity (virtual server & storage), 4x1GbE & 2x10G SFP ports, redundant power supply; ➔ To include virtualization software, Windows Server 2022 Datacenter Edition (2x16-core), and installation/setup; ➔ Installation and setup of Server Room Enclosure with Fire suppression alarm Included (approximately 10 sqm floor area); ➔ Warranty : **at least 1-year**; ➔ On-site Support Warranty : **at least 3-years**;	

➔ Customer Support : **Perpetual**

Hyper-Converged Infrastructure must provide the following Features:

➔ The Hyper-Converged Infra (HCI) must be also capable and ready for network virtualization and network virtual security (Virtual Firewall, Bandwidth Manager, SSL VPN, WAN Optimization);
➔ The HCI solution should start with a minimum of two nodes, and still expandable from 2 to more nodes directly without redoing the implementation or reinitialization of HCI;
➔ The management platform is integrated and distributed, not relying on a certain virtual machine or physical machine, which is more reliable;
➔ Additional management software are not required, after deployment of the hypervisor to achieve basic web-based access to GUI, granular management, and easy operation;
➔ Support correlated security service with intelligent threat detection and response platform to automatically take actions (such as quarantine VM by a distributed firewall, take a snapshot for VM, etc,.) against malicious activities that are detected by the security platform.

Compute Virtualizations:

➔ Should have High-Availability. In case the host fails, all the VMs running on that host can be recovered to another clustered host to ensure business continuity;
➔ Backup is built-in by default and supports agent-less incremental VM-level backup. For Windows VMs, file-level recovery must be supported;
➔ Support snapshot consistent group and scheduled snapshots;
➔ Able to evaluate the performance of virtual machines and hot-add resources (vCPU and vRAM) when they are running out of CPU or memory, minimizing business downtime;
➔ Must support module Activated CDP (Continues Data Protection) capable of recording at least 5 VMs' IOs at an interval as minimum as 1 second, data can be restored at any point of time in the past 3 days for both clusters;
➔ AI-Enhanced database performance optimization with built-in self-adaptive performance optimization engine;
➔ Support host health monitoring, when a host is deemed unhealthy, it will be put in an unhealthy host list, VM placement and HA failover will avoid using the unhealthy host as a destination. When the host is back to normal, it can automatically be taken out of the unhealthy host list;

Storage Virtualizations:

➔ Storage is in distributed architecture where more than one storage node is composed of a Storage Area Network (SAN) that can be scaled out (by increasing nodes) to expand storage capacity and performance;
➔ Support access via iSCSI, enabling other hosts in the cluster to use iSCSI to access the virtual storage, making server and IP SAN work together, and maximizing storage utilization;
➔ A full copy of the VM's data should exist on the node where the VM is running to facilitate faster read and write;
➔ The virtual storage of Cluster must make use of SSD as cache tier and spinning disk as data tier to ensure performance and cost balance. Data is written to SSD first and read from SSD in priority to improve performance;
➔ Data that is frequently accessed (also called hot data) can use SSD as a persistent storage media, when VM is migrated or the host is rebooted, the hot data must still reside in the SSD for fast retrieval;
➔ Support disk bad sector prediction, scanning, and repair to maximize data security;
➔ Support storage capacity prediction based on historical usage statistics and consumption behavior;
➔ Support disk remaining life cycle prediction;

Network Virtualizations:

➔ Natively Support deploying virtual routers, virtual switches, and firewalls;
➔ Built-in distributed firewall to apply granular access control policy between VMs, securing east-west traffic (also known as Micro-segmentation);
➔ The virtual router supports high availability. A failed virtual router can be automatically recovered upon host failure, to ensure the high availability of routing service;
➔ Visualized Network topology can be completed simply by dragging objects and drawing connections via a visualized web-based management panel;

4. FULLY INTEGRATED SMART CABINET (All-in-One)

➜ 42U, equipped with PDU, Fan, 5KVA rack mount UPS, cooling system, rackmount fire suppression, and monitor;

➜ system management console;

➜ with at least 18U usable for HCI & Network Equipment. To include Electrical Power System Setup and cabling:

General:

➜ All-in-one single rack solution, equips with power protection, power management & distribution, IT cooling, and monitoring system;

➜ Cabinet dimension (Width x Depth x Height) 600mm × 1200mm × 2150mm;

➜ Integrated with cold aisle and hot aisle containment design with tempered glass door;

➜ Front and rear doors shall equip intelligent door locks. Support local door access via proximity card and key and remote door authorization via IP-based web interface;

➜ Rack shall have in-built tri-color intelligent lighting. Enable health indication of infrastructure;

➜ Shall offer at least 24RU IT usable space;

➜ Shall support at least 3kW IT load;

➜ Incoming power requirement of 50A/1P and voltage (Vac), 198Vac ~ 254Vac.

Standard Features:

➜ Single rack with the integration of power protection, thermal management, and monitoring & management under a centralized platform, provides stable operating conditions for IT devices;

➜ Fully enclosed operation and internal cooling circulation system, to ensure the cleanliness of cabinets and with temperature control, prolong the life of IT equipment. The compact and low-noise design shall suit office area applications;

➜ The system shall support high availability in terms of cold air supply. UPS to the backup cooling unit in the event of a power outage;

➜ The system shall be equipped with intelligent control functions such as integrated environment monitoring, device monitoring, and alarm notification, and provide a centralized monitoring platform for computer room management;

➜ 9" LCD touchscreen panel provides the intermediate status of the rack in terms of UPS status, thermal profile, security management, and alarm notification;

➜ The system shall have front & rear door electronic door access control;

➜ This electronic door access shall grant authorized user access to equipment via card authentication;

➜ This electronic door access shall grant access for scheduled times & selected door access (Front or rear) for each ID card configured;

➔ This electronic door lock shall support remote door access authorization via IP-based web hosting.

A. POWER MANAGEMENT UNIT (PMU)

➔ The power management unit shall manage power distribution and surge protection to the entire rack system;

➔ PMU shall act as centralized power management to supply and distribute power to devices, with Level C SPD protection. The power distribution of the whole unit shall meet the requirements of the Level C lightning protection test;

➔ It shall pass the lightning protection test of L-PE and N-PE 15kA, and meets the YD/T944 standard;

➔ The PMU and all electrical wiring components within the integrated rack system shall be pre-installed from the factory.

B. RACK POWER DISTRIBUTION UNIT (rPDU) 0U TYPE

➔ The system shall have dual intelligent power distribution units (PDU) setup;

➔ 2 x Intelligent switched PDU 16 ways 12 x C13 + 4 x C19; 16A max allowed.

C. UPS SYSTEM

➔ The system shall have rack mount UPS with a capacity of 5kVA supporting IT load & IT cooling;

➔ UPS shall utilize double conversion online topology designed to protect electronic equipment by supplying reliable, network-grade power featuring extremely tight voltage and frequency regulation. UPS Characteristic:
   ◆ UPS form factor, 2RU.
   ◆ Battery system in-rack: sealed, non-spillage, maintenance-free lead-acid battery
   ◆ Standard 1 unit of rack mount battery, for 7 minutes runtime at 3kW load

➔ UPS must Comply to standards:
   ◆ General safety requirements: EN62040-1/IEC62040-1
   ◆ EMC requirements: EN62040-2/IEC62040-2 (Class C2)
   ◆ Method of specifying the performance and test requirements: EN62040-3/IEC62040-3(VFI SS 111)
   ◆ Safety of information technology equipment, including electrical business equipment: EN60950
   ◆ Moisture, dust, and high-altitude test: GB/T 2423.21-2008
   ◆ Energy star certified: 2011/65/EU uninterruptible power supplies version 1.0 program

D. COOLING SYSTEM

➔ The compressor shall come with an environment-friendly refrigerant (R410A), and inverter-type arrangement with a variable capacity operation of 30% to 100%;

➔ This cooling unit shall have an integrated condenser, compressor, and evaporator within the cooling housing, eliminating the need to have outdoor mechanical installation;

➜ Total airflow shall have at least 750 CMH;
➜ This system shall enable the eco mode function. Allow drawing ambient air into the rack intelligently, to maintain the optimum operating condition of IT devices. It shall perform an automatic changeover to air conditioning mode when the ambient condition exceeds the threshold setting;
➜ UPS shall back up the cooling unit in the event of a power outage. To ensure continuous cold air supply;

E. FAN MODULE (EMERGENCY VENTILATION)
➜ The system shall have emergency ventilation to prevent high-temperature partial buildup inside the cabinet in the event of cooling system failure.

F. MONITORING
➜ The monitoring system shall monitor the state of intelligent devices, record alarm events, and notify the user of the intelligent device alarms through email or SMS mode. Monitoring Standard Package includes features as follows:
  ◆ Alarm Management
  ◆ Data Log History
  ◆ Device Management
➜ Integration-ready for monitoring of third-party fire-suppression activation.

5. LAPTOP PC (Unix-Based)
➜ at least 8-core CPU;
➜ at least 10-core GPU;
➜ at least 16-core Neural Engine;
➜ minimum of 16GB unified memory;
➜ at least 512GB SSD storage;
➜ at least 13.3 -inch display;
➜ Three Thunderbolt;
➜ 4 USB ports HDMI port, SDXC card slot, MagSafe 3 port;
➜ minimum of 140W USB-C Power Adapter.

D. ESTIMATED COST AND BREAKDOWN

Description	Quantity	Unit Cost	Total Cost
LOT 1 : Server Systems Solutions			
1. **Network Firewall (NGFW)**	1	1,200,008.60	1,200,008.60
2. **Managed Network Switch**	1	353,495.00	353,495.00
3. **Server** (Hyper-Converged Infrastructure)	1	8,654,644.00	8,654,644.00
4. **Fully Integrated Smart Cabinet** (All-in-One) a. Power Management Unit (PMU)	1	1,791,767.00	1,791,767.00

b. Rack Power Distribution Unit (rPDU) 0U Type c. Ups System d. Cooling System e. Fan Module (Emergency Ventilation) f. Monitoring			
5. **Laptop PC** (Unix-Based)	2	99,990.00	199,980.00
G r a n d T o t a l		**Php 12,199,894.60**	

E. APPROVED BUDGET FOR THE CONTRACT (ABC)

The ABC for the Supply, Delivery, Installation, and Configuration of ICT Equipment (Server Systems Solutions) is **Twelve Million One Hundred Ninety-Nine Thousand Eight Hundred Ninety-Four Pesos and Sixty Centavos Only (PhP 12,199,894.60)** inclusive of all applicable government taxes and charges, professional fees, and other costs.

F. PRODUCTION AND/OR DELIVERY SCHEDULE

Goods and services shall be delivered **within Sixty (90) calendar days** from the receipt of the Notice to Proceed (NTP).

G. BIDDERS ADDITIONAL REQUIREMENTS:

To ensure the quality of the products offered and assurance for immediate and competent after-sales technical support:

1. The prospective bidder must submit the following:

    a. Manufacturer (Principal) certification stating that the bidder is an authorized distributor or partner/ reseller of the products for HyperConverged Infrastructure (HCI) Server, and Next Generation Firewall (offered brand).

    b. Prospective bidder to submit proof of at least one (1) similar project implementation for the Years 2018-2022 on Hyper-Converged Infrastructure Server Setup, Configuration, and Installation.

    Note: The bidder shall submit either of these documents: A copy of the Contract, PO, or Certificate of Acceptance as proof of similar project implementation

    c. The Manufacture must have the certifications of ISO 9001:2015; ISO/IEC 27001:2013 and ISO/IEC 20000-1:2018 (must submit copy of certifications)

    d. Certification of at least one (1) Certified Implementation Engineer for the Server-Storage/Hyper-Converged Infrastructure; and of one (1) locally based certified personnel (Certified VMware Professional 6 - Data Center Virtualization) who will do the installation and configuration.

    Note: Certified Certifications and Company ID photocopy will form part of the eligibility documents.

H. WINNING BIDDER ADDITIONAL REQUIREMENTS

Below are the additional requirements that must be complied with during the project implementation and before the project acceptance:

1. **Project Management**

   a) Submit an updated Detailed Work Plan and Implementation Schedule (*Timeframe/periodic status reports to DA BAFE- PKMDD every 15th and 30th of each month and shall update the Gantt Chart Summary*)

   b) Oversee all phases of the entire project to complete implementation and shall always be ready for service **within Ninety (90) Calendar Days** from the receipt/conforme of the Notice to Proceed (NTP)

   c) Submit full project documentation including summary completion documentation with pictures and line testing test results.

2. **General Provisions**

   The winning bidder shall provide all equipment, materials, cables, and other supplies necessary for the completion and operation of the project.

I. AFTER-SALES SERVICE OR PARTS

   A. ORIENTATION/TRAINING REQUIREMENTS

   The Winning Bidder shall provide **at least one (1) day** of online/in-person training/technical updates on Hyper-Converged Infrastructure Server, Smart Cabinet, and Network Firewall and they must provide knowledge transfer or necessary training for the server system solution configuration, administration, and maintenance.

   B. WARRANTY REQUIREMENTS

   To secure requested brand-new pieces of ICT equipment with service and hardware warranty for at least one (1) year on all ICT Equipment items. Bidder must be available for 8x5 technical support for the duration of the warranty/contract with an available 24x7, thru email, phone, or remote, 8x5 NBD onsite support, 24-hour response time starting from the time of the report, and immediate supply of the service unit just in case the device is unrecoverable.

J. PAYMENT TERMS AND CONDITIONS

   One-time payment shall be made upon completion of the supply, delivery, installation, and configuration of ICT Equipment (Server System Solution) subject to submission of the following documents:

   a. Certificate of Warranty for all equipment;
   b. Certificate of Replacement for defective items/parts; and
   c. Sales Invoice/Delivery Receipt.

K. MODE OF PROCUREMENT / AWARDING

The Supply, Delivery, Installation, and Configuration of ICT Equipment (Server Systems Solutions) will be procured through **Public Bidding**. The awarding of this project shall be done by **LOT**.

Prepared by:

JULIUS ABE S. PERALTA
Chief, Digital Technology Application Section
Permanent Procurement Coordinator, PKMDD

CONFORME:

_____   _____
[Signature of Authorized Representative]   *[In the capacity of (Please indicate position of Authorized Representative]*

Duly authorized to sign Bid for and on behalf of _____
                                                  [Please indicate the name of company]

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TECHNICAL SPECIFICATIONS

SUPPLY, DELIVERY, AND INSTALLATION OF VARIOUS ICT EQUIPMENT

I.   RATIONALE/PURPOSE/OBJECTIVE

The acquisition of ICT goods under this procurement will establish high-end technology devices which will provide a good quality media output. This will also ensure the BAFE ICT infrastructure continuous upgrades. With this the Bureau of Agricultural and Fisheries Engineering (BAFE) intends to procure the following:

- **DESKTOP (HIGH-END).** To Provide pieces of which will be used by the technical personnel of PKMDD for the development of engineering applications and software projects that need higher system requirements specifications for Programming.
- **WIRELESS ALL-IN-ONE PRINTER.** Print copies of documents for the filling system and physical database specifically for the original copies of permits and certificates issued and for communication letters and other documents generated.
- **ID PRINTER.** To facilitate the printing of Identification Cards for the BAFE personnel.
- **INTERACTIVE PANEL** To provide high-resolution audio and video during virtual/in-house meetings, conduct online training /workshops, interviews, and BAFE work-related presentation materials.
- **VIDEO CONFERENCE** is used for all your interactive discussion needs. Each microphone unit includes an on/off button and a built-in loudspeaker. They eliminate the problems of noise and feedback that exist with conventional microphones. These are often referred to as "Push to Talk" microphones.
- **DSLR CAMERA.** Can be used to record information and capture actual events in the form of Images and videos. This media will be used as the basis for reporting and documentation of every BAFE event.
- **DOCUMENTATION DEVICE.** A portable handy tool for giving presentations. To facilitate faster connectivity anywhere and for Documentation purposes.
- **CCTV SYSTEM** Designed to help prevent and detect crime. It can assure the public of the community's safety and provide evidence of the relevant implementations.
- **IP PHONE.** To facilitate faster communication to all divisions thru a network.

II.   APPROVED BUDGET FOR THE CONTRACT (ABC)

The ABC for the Supply, Delivery, and Installation of Various ICT Equipment is **One Million Eight Hundred Ninety-Nine Thousand Pesos Only (Php 1,899,000.00)** inclusive of all applicable government taxes and charges, professional fees, and all other costs.

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III. PROJECT/DELIVERY SITE

- The project shall cover the Supply, Delivery, and Installation of Various ICT Equipment.
- All items shall be supplied and delivered at **BAFE, Sugar Center, Annex II Building Extension, North Avenue, Diliman, Quezon City**.

IV. PRODUCTION AND/OR DELIVERY SCHEDULE

Goods and services shall be delivered within **Ninety (90) calendar days** from the receipt/conforme of Notice to Proceed (NTP).

V. ITEM SPECIFICATIONS AND COST ESTIMATES

LOT No.	DESCRIPTION/ PARTICULARS	QTY	UNIT COST	TOTAL COST	TOTAL COST (PER LOT)
1	**DESKTOP COMPUTER (HIGH-END)** **Processor:** At least 11th generations, 10 Cores, comparable or better processor Max Turbo Frequency: At least 5.2 Ghz Cache: Up to 20MB **Motherboard:** Compatible to at least 11th Generation processors, comparable, or better processor **Operating System:** Latest compatible Operating System **Memory:** At least 16 GB RAM or better memory **Graphics Processing Unit:** At least 6GB RTX 3070 GDDR5, comparable, or better graphics card **Power Supply:** Compatible with 220 – 240 V and 60 Hz AC power input is applicable **1st Storage (HDD):** At least 1 TB **2nd Storage (SSD):** At least 256 GB **Display:** At least 23 inches full HD **Accessories and Peripherals:** - AC Adapter and Power Cord; - Wireless mouse; - Keyboard; - With installed Wi-fi Adapter (at least 1300 Mbps Wi-fi Speed) to PCI-E slot - With installed latest proprietary office business productivity tools (proprietary and perpetual	1	135,000.00	135,000.00	**135,000.00**

		license)
		- System hardware specifications must be compatible with the following software: • PDF editor (Perpetual) • Office Productivity Tool (Perpetual) - With a Web Camera (at least 1080p video capture resolution) - Uninterrupted Power Supply • Interface: 6x Universal Socket • Short circuit, battery overcharge/ over-discharge, overload, surge protections • Automatic charging in OFF mode • Unattended safety shutdown: system alarm and auto Power-On • 1000 VA • 230 Volts • Automatic Voltage Regulation (AVR) • At least 1-year Warranty - With user manual

#	Item	Qty	Unit Cost	Subtotal	Total
2	**WIRELESS ALL-IN-ONE PRINTER** **Functions:** Print, Scan, Copy, Fax **Print Speed:** Up to 25 images per minute **Paper Size:** - A3, Super B (13 x 19"), Legal, Letter, A4, 16K (195 x 270mm), 8K (270 x 390mm), Executive (7.25 x 10.5"), B4, B5, A5, B6, A6, 8.5 x 13", 5 x 7", 4 x 6", 8 x 10", Legal (8.5 x 1 4"), 16:9 wide, Envelopes: #10, DL, C6, C4 - Automatic duplex printing **Resolution:** 4800 x 1200 dpi 10.9cm LCD touchscreen **Flexible Connectivity**: USB 2.0, Ethernet, Wi-Fi IEEE 802.11 b/g/ n, Wi-Fi Direct, USB host **Mobile device printing:** Yes **Inclusions**: - One (1) set of original inks - Quick Setup Guide and Basic User's Guide - AC Power Cord - Driver and Utilities (CD-ROM) **Miscellaneous:** • At least 250 sheets of paper capacity	1	54,981.00	54,981.00	**159,981.00**

	- At least compatible with Windows and Mac - With at least two (2) standby maintenance box - Wireless printing capable or better feature - With at least 2 m USB 2.0 interface cable - At least compatible with 220-240 V and 60 Hz AC power input - At least 1 year warranty - With user manual				
2	**ID PRINTER** - Dye Sublimation (Direct-to-Card) or better - Memory: At least 64MB, 8MB Flash - Resolution: At least 300 dpi continuous tone - Accepted ID Card size: At least 2.13x3.37 inch/53.98x5.66mm - Compatible ID Card Type: PVC - Compatible to the latest Operating System (Windows/Mac) - Interface: USB 2.0, Ethernet, or better interfaces - With bundled program/software for creating ID cards to print - at least one (1) year warranty - with user Manual *Inclusion: at least 400 pieces of blank PVC ID cards, consumables, and bundled software Standard Features.*	1	105,000.00	105,000.00	
3	**INTERACTIVE FLAT PANEL** - At least 86" TFT LCD Module with LED Backlight - Ultra HD 3840 x 2160 4K resolution or better screen resolution - Warranty: **At least 1-year** - With Operations Manual **Built-in Processor:** - At least Dual-core processor with at least 1.5GHz clock speed or equivalent processor - At least 4GB DDR3 RAM - At least 32GB storage - With wireless module provides a dual-band 2.4GHz/5GHz - WiFi network, as well as Bluetooth support **Additional PC Module:**	2	474,895.00	949,790.00	**949,790.00**

| | | At least Quad-core processor with at least 2.1 GHz Base Frequency and at least 4 MB Cache processor
● At least 8th or latest available and compatible processor generation
● At least 8GB DDR4 memory
● At least 128GB SSD storage
● at least Windows 10 Operating system or latest compatible OS
Touch:
● IR recognition or better technology
● At least 32767 x 32767 resolution
● 20 points touch and 10 points writing
● At most response time: 30ms
Input & Output:
● 4 HDMI 2.0
● 1 VGA
● 1 VGA Audio
● 1 MIC
● 3 USB 2.0
● 2 USB (type B, 1 DP, 1 Earphone, 1 RJ45, 1 RS232)
Accessories:
● Rack stand
● 1x20m HDMI cable
● USB-Type HD Camera
● Wireless Mouse & Keyboard
Functionality (Uses):
Meeting and Training Room-Electronic Whiteboard; Projector; Computer (desktop mirroring, teleconferencing, etc.) | | | | |
| 4 | **VIDEO CONFERENCING CAMERA**
● High Definition 1080 Pixel at 30 FPS
● at least 1/2.8 inch high quality, 2.38MP (16:9) aspect ratio CMOS sensor
● Resolution: at least 20 megapixel
● Pan: 340° Tilt: 160°
● 25x Optical zoom
● USB HDMI SDI RJ45 Video Output
● Plug & Play USB Connectivity
● Crystal clear HD1080P and 1080i image quality
● 69.5° Wide field of view with no video distortion
● With Mounting : **Yes**
● 2D and 3D NR for best video quality in different lighting conditions
● at least 1-year warranty | 1 | 58,696.00 | 58,696.00 | **287,898.00** |

	● with User's Manual				
4	**DSLR CAMERA** ● At least 24.3MP FX-Format CMOS Sensor, Multi-CAM 3500FX II 51-Point AF Sensor ● At Least 4 Image Processor ● 3.2" 1,229k-Dot RGBW Tilting LCD Monitor ● Full HD 1080p Video Recording at 60 fps, Continuous Shooting Up to 6.5 fps ● Native ISO 12800, Extended to ISO 51200 ● 91k-Pixel RGB Sensor and Group Area AF, Built-In Wi-Fi Connectivity ● Snap Bridge Bluetooth and Wi-Fi with NFC ● Time-Lapse Movie Recording ● With memory card slot ● with User's Manual ● at least 1 year warranty **Inclusion:** ● 1- Camera lens for at least 18-135mm ● 1- Rechargeable Lithium-Ion Battery compatible to the proposed product ● 1- Quick Charger compatible to the battery of the proposed product ● 1- At least 128GB memory card compatible to the proposed product ● 1- Camera Strap (Black) compatible to the proposed product ● 1- Tripod compatible to the proposed product ● 1- Camera Bag compatible to the proposed product	1	119,616.00	119,616.00	
4	**DOCUMENTATION DEVICE** ● at least 10.9 Touch Screen Display ● Cellular: LTE, 4G ● At least a 4k UHD ● Processor: At least Octa Core 2.4ghz or higher ● Screen resolution: 2560 x 1600 pixel with 120 Gigahertz refresh rate ● At least 8GB RAM 256GB ROM; ● At least 8.0MP Front + 13.0MP Rear Dual Camera ● At Least Dual Band 2.4GHz /	2	54,793.00	109,586.00	

	5.0GHz Wi-Fi ● Body protection: At least IP53 designed or better ● Battery capacity: At least 7000 mAh or higher ● Sensors: at least Fingerprint Scanner, Gyro Compass, GPS, AR-Enabled, Accelerometer, proximity ● GPS Capability: A-GPS and GPS ● Inclusion of Charger, Power adapter, and cable ● At least one year warranty ● User's Manual				
5	**CCTV SYSTEM** ● At least 5MP 16 Channel PoE DVR Recorder with 6TB Hard Drive with at least 32 inches LCD Monitor ● 8 units of 5MP Outdoor Bullet Audio Camera Weatherproof Camera,120ft Night Vision ● 8 units of 5MP Indoor Turret Audio Camera,120ft Night Vision ● Stable & Lossless Video Quality ● At least with Remote Access & Motion Detection & Instant alerts ● Inclusion of at least 305 meters of cctv cables with Connector, and 1 Centralize Power Supply PSU, 16 20 Junction box, ● Training/knowledge transfer. ● With Mobile Application Feature used for monitoring ● at least 1 year warranty	1	109,581.00	109,581.00	**109,581.00**
6	**IP PHONES** ● Unit, power adapter, and licenses ● Multiple VoIP protocol Support, Integrated Ethernet Switch ● VoIP Compatible Flatforms ● 3.7-Inch Graphical Display ● Speakerphone: Yes ● Line Features: Caller ID, Call Waiting, Call Forwarding, Call Transfer, Call Hold ● Programmable: Yes ● Plug and Play Ready ● Additional Function: Intercom, Call Timer, Music on hold, Hands-Free Profile ● at least 1-year warranty	5	51,350.00	256,750.00	**256,750.00**
	G r a n d T o t a l : PhP 1,899,000.00				

VI. INSPECTION AND TESTS PROCEDURE

- Inspector and/or Supply Officer can reject any unit or part thereof that fails to pass any test and/or inspection or does not conform to specifications.
- Inspector and/or Supply Officer will issue an Inspection and Acceptance Report (IAR) upon determining that the delivered Various ICT Equipment (Printers, Scanner, and Document Camera) is usable and in good working condition.

VII. AFTER-SALES SERVICE OR PARTS

A. ORIENTATION/TRAINING REQUIREMENTS
- The Winning Bidder shall provide at least **one (1) day** of in-person/online training/technical updates on **ID printer, Interactive Flat Panel, DSLR Camera, CCTV System, and IP phones**. This shall include orientation on the operation, repair, maintenance, and basic troubleshooting of devices.

B. WARRANTY REQUIREMENTS
- To secure requested brand-new pieces of equipment with service and hardware warranty for **at least One (1) year**.
- Bidder must be available for 8x5 technical support for the duration of the warranty/contract with an available response on the **next business day** from the date the end-user reported the issues.

VIII. PAYMENT TERMS AND CONDITIONS

One-time payment shall be made upon completion of all lots for the supply and delivery of Various ICT Equipment subject to submission of the following documents:

a. Certificate of Warranty for all equipment;
b. Certificate of Replacement for defective items/parts; and
c. Sales Invoice/Delivery Receipt.

IX. MODE OF PROCUREMENT / AWARDING

The supply, delivery, and installation of various ICT equipment will be procured through public bidding. The awarding of this project shall be done by **LOT.**

X. ADDITIONAL TECHNICAL DOCUMENTS

All Bidders must submit the following documents:

1. Certification from the manufacturer that the bidder is an authorized reseller and/or distributor of the proposed products.

2. At least five (5) years active in the market and **at least one (1)** similar contract.

Prepared by:

JULIUS ABE S. PERALTA
Chief, Digital Technology Application Section
Permanent Procurement Coordinator, PKMDD

CONFORME:

_____   _____
[Signature of Authorized Representative]   *[In the capacity of (Please indicate position*
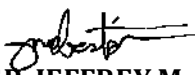   *of Authorized Representative]*

Duly authorized to sign Bid for and on behalf of _____
                                                                      [Please indicate the name of company]

Item Description	Bidders Statement of Compliance
PROCESSOR -at least an octa-core, comparable, or better processor	
PROCESSOR CLOCK SPEED -at least 2.4 GHz, or better	
OPERATING SYSTEM -at least android 12, comparable, or better	
RAM -at least 6 GB or better internal memory	
DISPLAY -at least 6.6 inches or better display	
TOUCHSCREEN -at least capacity type or better touchscreen type	
SCREEN RESOLUTION -at least 1080 x 2408 (FHD+)	
STORAGE (INTERNAL) -at least 64 GB or better	
STORAGE (EXPANDABLE) -capable of at least 512 GB of external microSD or better	
REAR CAMERA CAPABILITY (Resolution-Multiple) -at least 50 MP with autofocus or a better rear camera	
FRONT CAMERA -at least 8 MP or better front camera	
VIDEO CAMERA -1080p @ 30 fps	
BODY PROTECTION -at least IP 53, with front glass or better body protection	
BATTERY -at least 5000 mAh or better capacity	
GPS -with GPS, GLONASS, BDS, Galileo	
SENSOR -with an accelerometer, gyro, compass	
ACCESSORIES -AC adapter -with a sim card slot -with the latest compatible and available connectivity (WIFI, WIFI DIRECT, Bluetooth, etc.) -with at least (1) one each of the ff: power and data transport and 3.5 mm audio combo jack port -with user manual	
WARRANTY -at least one (1) year from the final date of acceptance for parts and services.	

Prepared by:

ENGR. JEFFREY M. SEBASTIAN
Permanent Procurement Coordinator

CONFORME:

_____
[Signature of Authorized Representative]

_____
[In the capacity of (Please indicate position of Authorized Representative]

Duly authorized to sign Bid for and on behalf of _____
[Please indicate the name of company]