DEPARTMENT OF SCIENCE AND TECHNOLOGY PHILIPPINE COUNCIL FOR HEALTH RESEARCH AND DEVELOPMENT



Project ID : PCHRD - PB - 2022 - 01

Project Name : Procurement of Supply and delivery of Various I.T. Equipment

Project Location : DOST-PCHRD Office, PCHRD Saliksik Building, Sikap Street,

DOST Main Compound, Gen. Santos Ave., Bicutan, Taguig City

SUPPLEMENTAL / BID BULLETIN NO. 1

April 25, 2022

Subject: Modification / Amendment of Some Provisions in the Bidding Documents

In connection with the project stated above advertised at the PhilGEPS and PCHRD Website on April 13, 2022; this Supplemental / Bid Bulletin No. 1 is issued to modify and amend some provisions in the Bidding Documents. Attached are the updated Technical Specifications.

I. Modification / Amendment of Some Provisions in the Bidding Documents

ORIGINAL PROVISION	AMENDMENT / CHANGE /	
	CLARIFICATION	
From:	To:	
Section VII: Technical Specifications	Section VII: Technical Specifications	
LOT A	LOT A	
> Four (4) units Rack Server:	> Four (4) units Rack Server:	
• Base	• Base	
1x ThinkSystem 1U 2.5" Chassis with 8	1x 1U 2.5" Chassis with 8 or 10 Bays	
or 10 Bays	1x Operating mode selection for:	
1x Operating mode selection for: "Maximum Efficiency Mode"	"Maximum Efficiency Mode"	
•	• Processors	
• Processors	1x AMD EPYC 7252 8C 120W 3.1GHz	
1x ThinkSystem AMD EPYC 7252 8C	Processor equivalent or higher	
120W 3.1GHz Processor		
	• Memory	
• Memory	2x 16GB TruDDR4 3200MHz RDIMM-	
2x ThinkSystem 16GB TruDDR4	A or higher	
3200MHz (2Rx8 1.2V) RDIMM-A		
	• Storage	
• Storage	1x Select Storage devices - configured	
1x Select Storage devices - configured	RAID	
RAID	1x RAID 930-16i 4GB Flash PCIe	
1x ThinkSystem RAID 930-16i 4GB	12Gb Adapter	
Flash PCIe 12Gb Adapter	1x Install largest capacity, faster drives	

Tel. Nos.: (02) 8-837-7534 to 37; (02) 8-837-0031; (02) 8-837-0087;

(02) 8-837-2924; (02) 8-837-2931

Fax. No.: (02) 8-837-2942

1x Install largest capacity, faster drives starting in Array 1 1x Controller 1 HW RAID Array 1 RAID 1 2x ThinkSystem 2.5" S4510 960GB Read Intensive SATA 6Gb HS SSD 1x ThinkSystem 1U 2.5" 10 SAS/SATA Backplane

• PCI

1x ThinkSystem Intel I350 1GbE RJ45 4-port OCP Ethernet Adapter 1x ThinkSystem NVIDIA Quadro P2200 5GB PCIe Active GPU 1x ThinkSystem 1U PCIe Gen4 x16/x16 Riser 1 1x ThinkSystem 1U LP+FH BF Riser Cage Riser1

• Power

2x ThinkSystem 750W (230/115V) V2 Platinum Hot-Swap Power Supply 2x 2.8m, 10A/100-250V, C13 to IEC 320-C14 Rack Power Cable

• Others

1x ThinkSystem XClarity Controller Standard to Advanced Upgrade 6x ThinkSystem 1U Performance Fan Option Kit 1x ThinkSystem Toolless Slide Rail Kit v2

Security 1x Feature Enable TPM 1.2 1x Disable IPMI-over-LAN

• Green Specs

Must have certifications on any of the following: 80 Plus; CEL (China); ECO Declarations; ENERGY STAR; EPEAT; Recycling; TCO

starting in Array 1
1x Controller 1 HW RAID Array 1
RAID 1
2x 2.5" 960GB Read Intensive SATA
6Gb HS SSD or higher
1x 1U 2.5" 10 SAS/SATA Backplane

• *PCI*

1x 1GbE RJ45 4-port Ethernet Adapter 1x NVIDIA Quadro P2200 5GB PCIe Active GPU or higher 1x 1U PCIe Gen4 x16/x16 Riser 1 1x 1U LP+FH BF Riser Cage Riser1

• Power

2x 750W (230/115V) Hot-Swap Power Supply or higher 2x 10A/100-250V, C13 to IEC 320-C14 Rack Power Cable

• Others

1x Management Controller
6x 1U Performance Fan Option Kit
1x Toolless Slide Rail Kit

• Security

1x Feature Enable TPM 1.2 or latest 1x Disable IPMI-over-LAN

• Green Specs

Must have certifications on any of the following: 80 Plus; CEL (China); ECO Declarations; ENERGY STAR; EPEAT; Recycling; TCO

From:

Section VII: Technical Specifications

LOT B

- > Twenty Eight (28) units Laptop (A):
 - Operating System: Windows 10 Pro 64
 - MS Office: Microsoft Office Home and Business 2019 (Pre-installed)
 - Base features: RyzenTM 7 5800U, AMD RadeonTM Graphics, and WWAN -276K9AV
 - ENERGY STAR: ENERGY STAR Qualified Configuration
 - Display: 13.3" diagonal LED UWVA Anti-Glare FHD (1920x1080), 400 nits, Ambient Light Sensor, for IR Webcam, Low Power, WWAN
 - Camera: Integrated HD 720p IR webcam with dual-microphone array
 - Memory: 16 GB DDR4-3200 PC4 SO-DIMM memory (2 DIMMs)
 - Internal Storage: 512 GB PCIe NVMe SSD
 - Keyboard: Premium spill-resistant keyboard, Clickpad with multi-touch gesture support
 - Wireless LAN: Realtek RTL8822CE 802.11ac (2x2) and Bluetooth® 5
 - AC adapter: 45-watt Smart AC Adapter, right-angle connector, non-PFC
 - Power Cord: 1.0m Power Cord with C5 connector; Destination Country Localization Kit
 - Battery: 3-cell 53 WHr Long Life Battery (Internal and not replaceable by customer. Serviceable by warranty.)
 - Audio: Dual stereo speakers, dual array microphones
 - External I/O Ports: 2 SuperSpeed USB Type-A 5Gbps signaling rate (1 charging); 1 SuperSpeed USB Type-C® 10Gbps signaling rate (USB Power Delivery, DisplayPort™ 1.4); 1 headphone/microphone combo; 1 HDMI 2.0; 1 AC power
 - Weight: Starting at 2.2 lb

To:

Section VII: Technical Specifications

LOT B

- > Twenty Eight (28) units Laptop (A):
 - Operating System: Windows 10/11 Pro 64
 - MS Office: Microsoft Office Home and Business 2019 or latest version
 - Base features: Ryzen 7 5800U equivalent or higher, AMD Radeon Graphics, and WWAN
 - ENERGY STAR: ENERGY STAR Qualified Configuration
 - Display: 13.3" or 14" Anti-Glare FHD (1920x1080)
 - Camera: Integrated HD 720p with microphone
 - Memory: 16 GB DDR4-3200 memory or higher
 - Internal Storage: 512 GB SSD or higher
 - Keyboard: spill-resistant keyboard, Clickpad with multi-touch gesture support
 - Wireless LAN: Realtek 802.11ac and Bluetooth
 - AC adapter: 45-watt AC Adapter or higher
 - Battery: 3-cell 53 WHr Long Life Battery or higher
 - Audio: Dual stereo speakers, microphones
 - External I/O Ports: 2 USB Type-A, 1 USB Type-C, 1 headphone/microphone combo; 1 HDMI 2.0; 1 AC power
 - *Weight*: 2.2 *lb* − 3 *lbs*
 - Warranty: at least one-year warranty
 - Must have certifications on any of the following: 80 Plus; CEL (China); ECO Declarations; ENERGY STAR; EPEAT; Recycling; TCO

- Warranty: One-year limited warranty (1/1/0)
- Must have certifications on any of the following: 80 Plus; CEL (China); ECO Declarations; ENERGY STAR; EPEAT; Recycling; TCO

From:

Section VII: Technical Specifications

LOT C

- > Two (2) units Laptop (B)
 - Processor: 10th Generation Intel® Core™ i7-10870H (8-Core, 16MB Cache, up to 5.0GHz Max Turbo Frequency)
 - Operating System: Windows 11 Pro, English
 - Graphics Card: NVIDIA® GeForce RTXTM 3060 6GB GDDR6
 - Display: 17.3" FHD (1920 x 1080) 144Hz or Higher, 5ms 300-nits 100% sRGB color gamut with NVIDIA-GSYNC technology
 - Memory: 32GB DDR4 2933MHz
 - Hard Drive: 2TB PCIe M.2 SSD
 - Ports
 - 2 USB 3.2 Gen 1 Type-A ports
 - 1 USB 3.2 Gen 1 Type-A with Powershare Technology
 - 1 ThunderboltTM 3 port
 - 1 Audio Out 1/8" Port
 - 1 HDMI 2.1b with HDCP 2.2 Output port
 - 1 Mini DisplayPortTM 1.4
 - 1 KillerTM Networks E3100x Gigabit Ethernet NIC port
 - 1 Graphics Amplifier port
 - 1 Power/DC-In Port
 - Slots
 - 1 MicroSD-card slot
 - 1 Wedge-shaped lock slot
 - Starting weight: 2.50 Kg (5.51 Lbs)
 - Maximum weight: 2.97 Kg (6.55 Lbs)
 - Camera: 720p at 30 fps, HD camera with digital-array microphones in camera assembly

To:

Section VII: Technical Specifications

LOT C

- > Two (2) units Laptop (B):
 - Processor: 10th Generation Intel® Core[™] i7-10870H (8-Core, 16MB Cache, up to 5.0GHz Max Turbo Frequency) equivalent or higher
 - Operating System: Windows 11 Pro, English
 - Graphics Card: NVIDIA GeForce RTX 3060 6GB GDDR6 or higher
 - Display: 15.6" or 17.3" FHD (1920 x 1080), 144Hz or higher, 5ms 300-nits or higher, 100% sRGB color gamut with NVIDIA-GSYNC technology
 - Memory: 32GB DDR4 2933MHz or higher
 - Hard Drive: 2TB SSD
 - Ports
 - 2 USB 3.2 Gen 1 Type-A ports
 - 1 USB 3.2 Gen 1 Type-A with Powershare Technology
 - 1 Thunderbolt 3 port
 - 1 Audio Out 1/8" Port
 - 1 HDMI
 - 1 Mini DisplayPort
 - 1 Gigabit Ethernet NIC port
 - 1 Graphics Amplifier port
 - 1 Power/DC-In Port
 - Slots
 - 1 MicroSD-card slot
 - Starting weight: 2.50 Kg (5.51 Lbs)
 - *Maximum weight: 2.97 Kg (6.55 Lbs)*
 - Camera: 720p at 30 fps, HD camera with microphones
 - Audio and Speakers: stereo speakers with dual tweeters and woofer

- Audio and Speakers: 4-way stereo speakers with dual tweeters and woofer, 4 W x 2 = 8 W total
- Touchpad: Multi-touch gesture Premium Precision glass touchpad with integrated scrolling
- Wireless: KillerTM Wi-Fi 6 AX1650 802.11ax 2x2 Wireless LAN and Bluetooth 5.1
- Must have certifications on any of the following: 80 Plus; CEL (China); ECO Declarations; ENERGY STAR; EPEAT; Recycling; TCO

- Touchpad: Multi-touch gesture touchpad with integrated scrolling
- Wireless: Wireless LAN and Bluetooth
- Must have certifications on any of the following: 80 Plus; CEL (China); ECO Declarations; ENERGY STAR; EPEAT; Recycling; TCO

This Supplemental / Bid Bulletin shall form an integral part of the said Bidding Documents.

For guidance and information of all concerned.

PAUL ERNEST N. DE LEON
Chairperson, Bids and Awards Committee

Technical Specifications

Lot	Specification	Statement of Compliance
A	> Four (4) units Rack Server	
A.	• Base	
	1x 1U 2.5" Chassis with 8 or 10 Bays	
	1x Operating mode selection for: "Maximum Efficiency	
	Mode"	
	• Processors	
	1x AMD EPYC 7252 8C 120W 3.1GHz Processor equivalent or higher	
	• Memory	
	2x 16GB TruDDR4 3200MHz RDIMM-A or higher	
	• Storage	
	1x Select Storage devices - configured RAID	
	1x RAID 930-16i 4GB Flash PCIe 12Gb Adapter	
	1x Install largest capacity, faster drives starting in Array 1	
	1x Controller 1 HW RAID Array 1 RAID 1 2x 2.5" 960GB Read Intensive SATA 6Gb HS SSD or	
	higher 1x 1U 2.5" 10 SAS/SATA Backplane	
	• PCI	
	1x 1GbE RJ45 4-port Ethernet Adapter	
	1x NVIDIA Quadro P2200 5GB PCIe Active GPU or higher	
	1x 1U PCIe Gen4 x16/x16 Riser 1	
	1x 1U LP+FH BF Riser Cage Riser1	
	• Power	
	2x 750W (230/115V) Hot-Swap Power Supply or higher 2x 10A/100-250V, C13 to IEC 320-C14 Rack Power Cable	
	• Others	
	1x Management Controller	
	6x 1U Performance Fan Option Kit 1x Toolless Slide Rail Kit	
	• Security	
	1x Feature Enable TPM 1.2 or latest	
	1x Disable IPMI-over-LAN	
	• Green Specs Must have certifications on any of the following: 80 Plus;	
	CEL (China); ECO Declarations; ENERGY STAR; EPEAT; Recycling; TCO	

➤ One (1) unit Network Attached Storage (High-end)

- CPU Model: Intel Xeon Silver 4110
- CPU Quantity: 2
- CPU Architecture: 64-bit
- CPU Frequency: 8-core 2.1 (base) / 3.0 (turbo) GHz
- Hardware Encryption Engine (AES-NI): YES
- System Memory: 32 GB DDR4 ECC RDIMM
- Memory Module Pre-installed: 32 GB (16 GB x 2)
- Total Memory Slots: 16
- Maximum Memory Capacity: 512 GB (32 GB x 16)
- Drive Bays: 24
- Maximum Drive Bays with Expansion Unit: 48 (RX1217sas x 2) / 72 (FX2421* x 2)
- Compatible Drive Type: 2.5" SAS HDD; 2.5" SAS SSD; 2.5" SATA SSD
- Maximum Single Volume Size:
 - 1 PB (64 GB memory required, for RAID 6 groups only)
 - 200 TB
- RJ-45 1GbE LAN Port: 2 (with Link Aggregation / Failover support)
- RJ-45 10GbE LAN Port: 2 (with Link Aggregation / Failover support)
- USB 3.2 Gen 1 Port: 2
- Expansion Port: 1
- PCIe Expansion: 2 x Gen3 x8 slots (x8 link)
- Internal Drives: Btrfs/EXT4
- External Drives:

Btrfs/EXT4/EXT3/FAT/NTFS/HFS+/exFAT

- Form Factor (RU): 2U
- Size (Height x Width x Depth): 88 mm x 482 mm x 724 mm
- Weight: 17.26 kg
- System Fan: 80 mm x 80 mm x 4 pcs
- Fan Speed Mode: Full-speed Mode / Cool Mode / Quiet Mode
- Noise Level: 53.7 dB(A)
- Power Supply Unit / Adapter: 800 W
- AC Input Power Voltage: 100 V to 240 V AC
- Power Frequency: 50/60 Hz, Single Phase
- Operating Temperature: 0°C to 35°C (32°F to 95°F)
- Storage Temperature: -20°C to 60°C (-5°F to 140°F)
- Relative Humidity: 5% to 95% RH
- CERTIFICATION: FCC; CE; BSMI; EAC; KC; VCCI; RCM
- Warranty: 5 Years
- 24 pcs HARD DISK Included
- Must have certifications on any of the following: 80 Plus; CEL (China); ECO Declarations; ENERGY STAR; EPEAT; Recycling; TCO

B > Twenty Eight (28) units Laptop (A)

- Operating System: Windows 10/11 Pro 64
- MS Office: Microsoft Office Home and Business 2019 or latest version
- Base features: Ryzen 7 5800U equivalent or higher, AMD Radeon Graphics, and WWAN
- ENERGY STAR: ENERGY STAR Qualified Configuration
- Display: 13.3" or 14" Anti-Glare FHD (1920x1080)
- Camera: Integrated HD 720p with microphone
- Memory: 16 GB DDR4-3200 memory or higher
- Internal Storage: 512 GB SSD or higher
- Keyboard: spill-resistant keyboard, Clickpad with multitouch gesture support
- Wireless LAN: Realtek 802.11ac and Bluetooth
- AC adapter: 45-watt AC Adapter or higher
- Battery: 3-cell 53 WHr Long Life Battery or higher
- Audio: Dual stereo speakers, microphones
- External I/O Ports: 2 USB Type-A, 1 USB Type-C, 1 headphone/microphone combo; 1 HDMI 2.0; 1 AC power
- Weight: 2.2 lb 3 lbs
- Warranty: at least one-year warranty
- Must have certifications on any of the following: 80 Plus; CEL (China); ECO Declarations; ENERGY STAR; EPEAT; Recycling; TCO

➤ One (1) unit Server (Desktop Type Windows OS)

- Processor: Intel Xeon E3-1225 v5 Processor 3.3GHz., 4C/4T, 8M Cache, Turbo, HT (80W)
- Memory: 8GB DDR4 UDIMM (8GB x 1), 2133MT/s, Dual Rank (4 DIMM slots)
- Network Controller : Intel I219-LMÂ Gigabit Ethernet LANÂ 10/100/1000 1 Port
- Storage Controller:
- Software RAID: Intel Rapid Storage Controller 12.0 (supports SATA 6Gb's or SATA 3Gb's)
- Hard Drive: 1TB 7.2K Entry SATA 3.5" Cabled HDD
- Optical Drive; Internal DVD+/- RW Drive
- Power Supply: Single Power Supply 290W, Bronze
- Management : Intel AMT 11.0 (Only on Intel Xeon CPU)
- Form Factor: Mini Tower
- Server Warranty: 3Yr Next Business Day Onsite
- Accessory: Keyboard and Mouse
- Must have certifications on any of the following: 80 Plus;
 CEL (China); ECO Declarations; ENERGY STAR;
 EPEAT; Recycling; TCO

> Ten (10) units Wireless Access Point

- Dimensions Ø196.7 x 35 mm
- Environment Indoor/Outdoor
- 2.4 GHz Speed 450 Mbps
- 5 GHz Speed 1300 Mbps

- PoE Mode 802.3af PoE/802.3at PoE+
- Ports (2) 10/100/1000 Ethernet
- compatible with existing controller (UniFi Controller)

> Twelve (12) units Printer (A)

- Printer Type: Print, Scan, Copy with ADF
- Print Method: PrecisionCore Printhead
- Printer Language: ESC/P-R, ESC/P Raster
- Nozzle Configuration: 400 x 1 nozzles Black, 128 x 1 per Colour (Cyan, Magenta, Yellow)
- Maximum Resolution: 4800 x 1200 dpi
- Automatic 2-sided Printing: Yes (Up to A4)
- Print Speed:
 - Photo Default 10 x 15 cm / 4 x 6 " *1: Approx. 69 sec per photo*2 / 92 sec per photo*2
 - Draft, A4 (Black / Colour): Up to 33.0 ppm / 20.0 ppm*2
 - ISO 24734, A4 Simplex (Black / Colour): Simplex: Up to 15.5 ipm / 8.5 ipm*2
 - ISO 24734, A4 Duplex (Black / Colour): Duplex: Up to 6.5 ipm / 4.5 ipm*2
 - First Page Out Time from Ready Mode (Black / Colour): Approx. 9 sec / 15 sec*2
- Copy Function:
 - Maximum Copy Size: Legal
 - Copy Resolution: 600 x 600 dpi
 - Max Copies: 99 copies
 - Copying:
 - ISO 29183, A4 Simplex Flatbed (Black / Colour):Up to 11.0 ipm / 5.5 ipm
 - ISO 24735, A4 Simplex ADF (Black / Colour): Up to 60 sec / 82 sec
- Scanner Type: Flatbed colour image scanner
- Sensor Type: CIS
- Optical Resolution: 1200 x 2400 dpi
- Maximum Scan Area: 216 x 297 mm (8.5 x 11.7 ")
- Scanner Bit Depth (Colour): 48-bit input, 24-bit output
- Scanner Bit Depth (Grayscale): 16-bit input, 8-bit output
- Scanner Bit Depth (Black & White): 16-bit input, 1-bit output
- Scan Speed: Flatbed (Black / Colour): 200dpi: 12 sec / 27 sec
- ADF Monochrome (Simplex): 200dpi: 5.0 ipm
- ADF Colour (Simplex): 200dpi: 5.0 ipm
- ADF Specifications: Support Paper Thickness: 64-95 g/m2
- Paper Capacity: 30 sheets
- Paper Handling:
 - Number of Paper Trays: 1
 - Standard Paper Input Capacity: Up to 250 sheets of Plain Paper (80 g/m2), Up to 20 sheets of Premium Glossy Photo Paper

- Output Capacity: Up to 30 sheets of Plain Paper (80 g/m2), Up to 20 sheets of Premium Glossy Photo Paper
- Maximum Paper Size: 215.9 x 1200 mm (8.5 x 47.24 ")
- Paper Size: Legal (8.5 x 14"), 8.5 x 13", Letter, A4, B5, A5, A6, Hagaki (100 x 148 mm), 16K (195 x 270 mm), Indian-Legal (215 x 345 mm), B6, 5 x 7", 4 x 6", Envelopes #10, DL, C6
- Print Margin: 0mm top, left, right, bottom via custom settings in printer driver*3
- Interface:
 - USB: USB 2.0
 - Network: Ethernet, Wi-Fi IEEE 802.11b/g/n, Wi-Fi Direct
 - Network Protocol: TCP/IPv4, TCP/IPv6
 - Network Management Protocols: SNMP, HTTP, DHCP, BOOTP, APIPA, PING, DDNS, mDNS, SLP, WSD, LLTD
- Control Panel:
 - LCD Screen: 2.4 " Colour LCD Screen
- Must have certifications on any of the following: 80 Plus;
 CEL (China); ECO Declarations; ENERGY STAR;
 EPEAT; Recycling; TCO

> One (1) unit Printer (B)

- Functions:
 - Print, Copy, Scan
 - Multitasking supported: Yes
- Printing specifications:
 - Print speed black:
 - Normal: Up to 31 ppm (Measured using ISO/IEC 24734, excludes first set of test documents. Exact speed varies depending on the system configuration, software application, driver, and document complexity.)
 - First page out (ready)
 - Black: As fast as 9 sec (Exact speed varies depending on the system configuration, software application, driver and document complexity.)
 - Duty cycle (monthly, A4): Up to 65,000 pages
 - Recommended monthly page volume: 4000 to 8000
 - Print technology: Laser
 - Print quality black (best): Up to 1200 x 1200 dpi
- Display: 3-in Touchscreen, LCD (color graphics)
- Processor speed: 750 MHz
- Automatic paper sensor: No
- Connectivity:
 - Wireless capability: Yes, built-in WiFi 802.11b/g/n
 - Connectivity, standard:
 - 1 Hi-Speed USB 2.0 Device
 - 1 Hi-Speed USB 2.0 Host
 - 1 Fast Ethernet 10/100Base-TX
 - 1 Wireless 802.11b/g/n

- Network ready: Standard (built-in Ethernet, WiFi 802.11b/g/n)
- Minimum system requirements:
 - Windows 7 (32-bit/64-bit), Windows Vista (32-bit/64-bit): 1 GHz 32-bit (x86) or 64-bit (x64) processor, 1 GB RAM (32-bit) or 2 GB RAM (64-bit), 400 MB free hard disk space, CD/DVD-ROM or Internet, USB or Network port
 - Windows XP (32-bit) SP2: Pentium® 233 MHz processor, 512 MB RAM 400 MB free hard disk space, CD/DVD-ROM or Internet, USB or Network port
 - Mac OSX v 10.6
 - PowerPC G4, G5, or Intel® CoreTM Processor
 - 500 MB hard disk
 - CD-ROM/DVD-ROM or Internet
 - USB or Network port
- Compatible operating systems
 - Full software installs supported on: Windows 8 32-bit and 64-bit, Windows 7 32-bit and 64-bit, Windows Vista 32-bit and 64-bit, Windows XP 32-bit (SP2 or higher)
 - Driver only installs supported on: Windows Server 2008 32-bit and 64-bit, Windows Server 2003 32-bit (SP3 or higher)
 - Mac OS X 10.6, OS X Lion, OS X Mountain Lion
 - (Windows 7/2008 R2 SP1, Windows XP (64-bit) SP2 or higher, Windows Server 2012, Windows Server 2008 (Standard Edition), Windows Server 2008 Enterprise Edition), Windows Server 2003 (Standard Edition), Windows Server 2003 (Enterprise Edition), Windows Server 2003 (64-bit), SP1 (x86 and x86-64) only support Print driver and Scan driver.)
- Memory specifications:
 - Memory: 256 MB
 - Maximum memory: 256 MB
 - Internal Storage: None
- Paper handling:
 - Paper handling input, standard: 100-sheet multipurpose tray, 250-sheet input tray
 - Paper handling input, optional: Optional 500-sheet input tray; optional Automatic duplexer for two-sided printing
 - Paper handling output, standard: 250-sheet output bin
 - Maximum output capacity (sheets): Up to 250 sheets
 - Duplex printing: Manual (driver support provided)
 - Media sizes supported: A4; A3; B4 (JIS); B5 (JIS); A5; 16K
 - Media types: Paper (colored, letterhead, light, plain, preprinted, prepunched, recycled, rough, heavy), bond, cardstock, envelope, labels, transparency, vellum
- Scanner specifications:
 - Scanner type: Flatbed
 - Scan file format: PDF, JPEG, PNG

- Scan resolution, optical: Up to 1200 x 1200 dpi (mono/color, flatbed)
- Scan size, maximum: 297 x 420 mm
- Duplex ADF scanning: No
- Scan input modes
 - Front-panel scan, copy buttons
 - Scan software and user application via TWAIN
- Copier specifications:
- Copy speed (normal): Black: Up to 31 cpm
- Copy resolution (black text): Up to 300 x 300 dpi
- Copy reduce / enlarge settings: 25 to 400%
- Copies, maximum: Up to 99 copies
- Power and operating requirements:
 - Power: 220-volt input voltage: 220 to 240 VAC (+/-10%), 50/60 Hz (+/- 3 Hz)
 - Power consumption: 700 watts (Printing), 12.5 watts (Ready), 3.9 watts (Sleep), 0.2 watts (Off)
 - Energy efficiency: ENERGY STAR® qualified, CECP
 - Operating temperature range: 10 to 32.5°C
 - Recommended operating humidity range: 30 to 70%
 RH
 - Acoustic pressure emissions bystander (active, printing): 52 dB(A)
- Must have certifications on any of the following: 80 Plus; CEL (China); ECO Declarations; ENERGY STAR; EPEAT; Recycling; TCO

C > Two (2) units Laptop (B):

- Processor: 10th Generation Intel® CoreTM i7-10870H (8-Core, 16MB Cache, up to 5.0GHz Max Turbo Frequency) equivalent or higher
- Operating System: Windows 11 Pro, English
- Graphics Card: NVIDIA GeForce RTX 3060 6GB GDDR6 or higher
- Display: 15.6" or 17.3" FHD (1920 x 1080), 144Hz or higher, 5ms 300-nits or higher, 100% sRGB color gamut with NVIDIA-GSYNC technology
- Memory: 32GB DDR4 2933MHz or higher
- Hard Drive: 2TB SSD
- Ports
 - 2 USB 3.2 Gen 1 Type-A ports
 - 1 USB 3.2 Gen 1 Type-A with Powershare Technology
 - 1 Thunderbolt 3 port
 - 1 Audio Out 1/8" Port
 - 1 HDMI
 - 1 Mini DisplayPort
 - 1 Gigabit Ethernet NIC port
 - 1 Graphics Amplifier port
 - 1 Power/DC-In Port
- Slots
 - 1 MicroSD-card slot
- Starting weight: 2.50 Kg (5.51 Lbs)
- Maximum weight: 2.97 Kg (6.55 Lbs)

- Camera: 720p at 30 fps, HD camera with microphones
- Audio and Speakers: stereo speakers with dual tweeters and woofer
- Touchpad: Multi-touch gesture touchpad with integrated scrolling
- Wireless: Wireless LAN and Bluetooth
- Must have certifications on any of the following: 80 Plus; CEL (China); ECO Declarations; ENERGY STAR; EPEAT; Recycling; TCO

We hereby comply with the above-stated Technical Specifications.

Submitted by	:
	(Name of Firm)
Signing Authority	:
	(Printed Name and Signature)
Designation	:
_	
Date	: