



**PURCHASE ORDER**

<b>Supplier: ADVANCE MICROSYSTEMS CORPORATION</b> Address: 1104-E Philippine Stock Exchange Center, Ortigas Center, Pasig City TIN: 000-152-057-000 Account No.: 003-342-1001-38      Bank: LBP - DECS Ext. Office Pasig Branch Telephone: 635-4181/635-3049      Fax: 635-3049	<b>P.O. # 023-12-198</b> <b>Date: December 29, 2023</b> <b>Mode of Procurement: Public Bidding</b>
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Gentlemen: Please furnish this Office the following articles subject to the terms and conditions contained herein:

Place of Delivery: <b>OFFICE OF THE SOLICITOR GENERAL</b>	Delivery Term: w/n thirty (30) days upon receipt of the Notice to Proceed (NTP)
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Date of Delivery:	Payment Term: w/n thirty (30) days from completion of the delivery upon final issuance of the Inspection and Acceptance Report (Bank to Bank)
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Stock No.	Unit	Description	Qty.	Unit Cost	Amount
	Lot	<b>SUPPLY, DELIVERY, INSTALLATION, AND CONFIGURATION OF:                      OSG DATA CENTER WITH WIDE AREA NETWORK SOLUTION &amp; NEXT                      GENERATION FIREWALL FOR MULTI-BRANCH SETUP AND OSG RELOCATED                      DIVISION'S DATA AND NETWORK INFRASTRUCTURE</b>  <b>HYPER CONVERGED INFRASTRUCTURE WITH SINGLE INTEGRATED RACK                      SOLUTION</b> <b>1. SINGLE INTEGRATED RACK SOLUTION</b> <b>Vertiv SmartCabinet ECO (42RU x 600 x 1200)</b> Cabinet Size (HxWxD): 2150x600x1200 (mm) Usable U Space: 24U Condenser Unit: Integrated Rack Design: Fully Enclosed Containment Display Panel: 9 inch LCD Touchscreen Cooling Capacity: 900 W ~ 3500 W, Variable Speed LED Lighting: Front & Rear UPS (Liebert ITA2): 6KVA UPS Power Factor: 1.0 IT System Capacity: ≤3kW System Input Requirement: 50A/1P, 220/230/240Vac System Frequency: 50Hz & 60Hz Power Distribution Units (PDU): 16A Input, 12xC13+4xC19, 2pcs Refrigerant: R410A Emergency Fan: Yes Centralized Monitoring & Management: Yes Water Leak Detection: 1 piece, 5 meters long Door Lock System: Smart Lock (Glass Door); Mechanical Lock (Steel Door) Safety Standards: EN 62368:2014+A11:2017 EMC Standards: EN 55032:2012 EN 61000-3-12:2011 Noise Level: Normal Operation ≤75dB; ECO Mode ≤50dB Net Weight: ≤350 kg High Availability (Cooling): Yes <b>2. SUPPLY, DELIVERY, AND INSTALLATION OF THREE (3) NODES PRE-                      VALIDATED HYPER-CONVERGED INFRASTRUCTURE (HCI) SYSTEM</b> <b>3 Nodes Lenovo ThinkAgile VX5530 Appliance</b> VX Offering Type: Appliance Target Workloads: Storage Heavy Base MTM: 7Z63CTO3WW Form Factor: 2U Base Platform: SR650 V2 CPU: 1x or 2x Intel Xeon SP Gen 3 Memory: 32x DDR4 3200 MHz (4TB maximum) Drive Bays: 16 x 3.5" (HS) Drive Configurations: All Flash Hybrid Disk Groups: 1-5 HBA: 430-8i HBA; 430-16i HBA Boot Drives: 2x M.2 SATA; 2x 7mm hot-swap CCP Networking: 1x OCP 3.0 adapter 10Gb, 25Gb PCIe Networking: Up to 7x adapters 10GBASE-T, 10G, 25G, 100G GPUs: No support Hypervisor: ESXi 7.0 U2 Inclusions: Software - Vmware vSAN	1	Php 17,449,700.00	Php 17,449,700.00

Stock No.	Unit	Description	Qty.	Unit Cost	Amount
		<p>Switch - Aruba 6300M 24SFP+ 4SFP56 Switch  Hot-swappable power supplies and fans - 2x Aruba X371 12VDC 250W AC Power Supply  Accessories - 6x Aruba 10GBASE-T SFP+ RJ45 30m Cat6A Transceiver  Warranty - With at least a Lifetime Warranty on parts and include Aruba 1Y FC NBD Exch 6300M 24SFP SVC</p> <p><b>3. NETWORK ATTACHED STORAGE (For Backup and Replication)</b>  <b>Synology SY-RS1221+ 2U 8 Bay Rackmount NAS with Synology SY-RKS-02 Rail Kit</b>  CPU: AMD Ryzen™ V1500B quad-core 2.2GHz  Hardware Encryption Engine: Yes (AES-NI)  Memory: 4 GB DDR4 ECC SODIMM (expandable up to 32 GB)  Compatible Drive Types: 8 x 3.5" or 2.5" SATA HDD/SSD  Hot Swappable Drives: Yes  External Ports: - 2 x USB 3.2 Gen 1 ports; 1 x Expansion port (eSATA)  Form Factor: Rackmount 2U  Size (HxWxD): RS1221+: 88 x 482 x 306.6 mm (with server handles)  Weight: RS1221+: 6.9 kg;  Rack Installation Support: RS1221+: 2-post 19" rack (direct mounting), 4-post 19" rack  LAN Ports: 4 x 1 GbF RJ-45  Wake on LAN/WAN: Yes  PCIe 3.0 Slots: 1 x 4-lane x8 slot; Supports 10GbE/25GbE network Interface cards and M.2 NVMe SSD adapter cards for SSD cache  Scheduled Power On/Off: Yes  System Fans: 2 x (80 x 80 x 25 mm)  AC Input Power Voltage: 100 V to 240 V AC  Power Consumption: RS1221+: 49.98 W (Access), 22.64 W (HDD Hibernation)  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)  Maximum Operating Altitude: 5,000 m (16,400 ft)  Inclusions:  6x Synology HAT5300-12T 12TB Enterprise SATA HDD</p> <p><b>WIDE AREA NETWORK SOLUTION WITH NEXT GENERATION FIREWALL FOR MULTI-BRANCH SETUP</b>  <b>1. UPGRADE AND REPLACEMENT OF EXISTING FIREWALL</b>  <b>SonicWall NSa 3700 Secure Upgrade Plus-Essential Edition 2 years Firewall</b>  Interfaces: 24x1GbE, 6x10G SFP+, 4x5G SFP+, 2 USB 3.0, 1 Console, 1 Mgmt. port  Storage: 128GB M.2  Expansion: Storage Expansion Slot (Up to 256GB)  Logical VLAN and Tunnel Interfaces (maximum): 256  SSO Users: 40,000  Access Points Supported (maximum): 512  Firewall/VPN Performance  Firewall Inspection Throughput: 5.5 Gbps  Threat Prevention Throughput: 3.5 Gbps  Application Inspection Throughput: 4.2 Gbps  IPS Throughput: 3.8 Gbps  Anti-malware Inspection Throughput: 3.5 Gbps  TLS/SSL Inspection and Decryption Throughput (DPI SSL): 850 Mbps  IPSec VPN Throughput: 2.2 Gbps  Connections per second: 22,000  Maximum Connections (SPI): 2,000,000  MAX DPI-SSL Connections: 150,000  Maximum Connections (DPI): 750,000  VPN  Site-to-site VPN Tunnels: 3,000  IPSec VPN Clients (max): 50(1000)  SSL VPN Licenses (max): 2(500)  Encryption/Authentication: DES, 3DES, AES (128, 192, 256-BIT)/MD5, SHA-1, Suite B Cryptography  Key Exchange: Diffie Hellman Groups 1, 2, 5, 14v  Route-based VPN: RIP, OSPF, BGP  Certificate Support: Verisign, Thawte, Cybertrust, RSA Keon, Entrust and Microsoft CA for SonicWall-to-SonicWall VPN, SCEP  VPN Features: Dead Peer Detection, DHCP Over VPN, IPSec NAT Traversal, Redundant VPN Gateway, Route-based VPN Traversal,  Global VPN Client Platforms Support: Windows 10  NetExtender: Windows 10 and Linux</p>			

Stock No.	Unit	Description	Qty.	Unit Cost	Amount
		<p>Mobile Connect: Apple iOS, Mac OS X, Android, Kindle Fire, Chrome OS, Windows 10</p> <p>Security Services</p> <p>Deep Packet Inspection Services: Gateway Anti-Virus, Anti-Spyware, Intrusion Prevention, DPI SSL</p> <p>Content Filtering Services (CFS): HTTP URL, HTTPS IP, Keyword and content scanning, Comprehensive filtering based on file types such as ActiveX, Java, Cookies for privacy, allow/forbid lists</p> <p><b>2. NEXT GENERATION FIREWALL</b></p> <p><b>SonicWall NSa 2700 Secure Upgrade Plus-Essential Edition 2 years</b></p> <p>Firewall</p> <p>Interfaces: 16x1GbE, 3x10G SFP+, 2 USB 3.0, 1 Console, 1 Mgmt. port</p> <p>Storage: 64GB M.2</p> <p>Expansion: Storage Expansion Slot (Up to 256GB)</p> <p>Logical VLAN and Tunnel Interfaces (maximum): 256</p> <p>SSO Users: 40,000</p> <p>Access Points Supported (maximum): 512</p> <p>Firewall/VPN Performance</p> <p>Firewall Inspection Throughput: 5.2 Gbps</p> <p>Threat Prevention Throughput: 3.0 Gbps</p> <p>Application Inspection Throughput: 3.6 Gbps</p> <p>IPS Throughput: 3.4 Gbps</p> <p>Anti-malware Inspection Throughput: 2.9 Gbps</p> <p>TLS/SSL Inspection and Decryption Throughput (DPI SSL): 800 Mbps</p> <p>IPSec VPN Throughput: 2.10 Gbps</p> <p>Connections per second: 21,000</p> <p>Maximum Connections (SPI): 1,500,000</p> <p>MAX DPI-SSL Connections: 125,000</p> <p>Maximum Connections (DPI): 500,000</p> <p>VPN</p> <p>Site-to-site VPN Tunnels: 2,000</p> <p>IPSec VPN Clients (max): 50(1000)</p> <p>SSL VPN Licenses (max): 2(500)</p> <p>Encryption/Authentication: DES, 3DES, AES (128, 192, 256-BIT)/MD5, SHA-1, Suite B Cryptography</p> <p>Key Exchange: Diffie Hellman Groups 1, 2, 5, 14v</p> <p>Route-based VPN: RIP, OSPF,BGP</p> <p>Certificate Support: Verisign, Thawte, Cybertrust, RSA Keon, Entrust and Microsoft CA for SonicWall-to-SonicWall VPN, SCEP</p> <p>VPN Features: Dead Peer Detection, DHCP Over VPN, IPSec NAT Traversal, Redundant VPN Gateway, Route-based VPN</p> <p>Global VPN Client Platforms Supported: Windows 10</p> <p>NetExtender: Windows 10 and Linux</p> <p>Mobile Connect: Apple iOS, Mac OS X, Android, Kindle Fire, Chrome OS, Windows 10</p> <p>Security Services</p> <p>Deep Packet Inspection Services: Gateway Anti-Virus, Anti-Spyware, Intrusion Prevention, DPI SSL</p> <p>Content Filtering Services (CFS): HTTP URL, HTTPS IP, Keyword and content scanning, Comprehensive filtering based on file types such as ActiveX, Java, Cookies for privacy, allow/forbid lists</p> <p><b>RELOCATION DATA AND NETWORK INFRASTRUCTURE</b></p> <p><b>1. SERVER ENCLOSURE, ESSENTIAL, 42U, 800W X 1170D, 1200KG, BLACK, FLAT</b></p> <p><b>Eaton REV42812EB-FP RE Series Server Enclosures, Essential, 42U, 800W x 1170D, 1200kg, Black, Flat Pack</b></p> <p><b>2. SUPPLY OF 2KVA UPS</b></p> <p><b>Eaton 9SX20001 2KVA UPS</b></p> <p>Rating: (VA/W): 2000VA/1800W</p> <p>Format: Tower or Rack 2U</p> <p>Technology: On-line double conversion with automatic bypass and Power factor correction system</p> <p>Input Voltage Range: 200-276V without derating (up to 140-276V with derating)</p> <p>Input: 1 IEC C14 (10A)</p> <p>Outputs: 8 IEC C13 (10A) sockets</p> <p><b>3. WIRELESS LAN INFRASTRUCTURE UPGRADE</b></p> <p><b>Indoor Access Points (20 Units):</b></p> <p><b>Aruba AP-505 (RW) Unified Access Points</b></p> <p>AP Type: Indoor, dual radio, 5GHz and 2.4GHz 802.11ax 2x2 MIMO</p> <p>5GHz Radio: Two spatial stream Single User (SU) MIMO for up to 1.2Gbps</p>			

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		<p>wireless data rate with 2SS HE80 802.11ax client devices</p> <p>2.4GHz Radio: Two spatial stream Single User (SU) MIMO for up to 574Mbps (287Mbps) wireless data rate with 2SS HE40 (HE20) 802.11 ax client devices</p> <p>Maximum Number of Associated Client Devices: Up to 256 associated client devices per radio</p> <p>Maximum Number of BSSIDs: 16 BSSIDs per radio</p> <p>Inclusions:</p> <ul style="list-style-type: none"> <li>Accessories - AP-MNT-D AP Mount Bracket Individual D</li> <li>Warranty - Lifetime Warranty on parts and include Aruba 1Y FC NBD Exch AP-505 SVC</li> </ul> <p><b>WLAN Controller Orchestrator for High Availability</b></p> <p><b>Aruba MCR-VA-500 Mob Mstr 500 Dev E-LTU</b></p> <p>Number of Devices: 500</p> <p>Number of Clients: 5,000</p> <p>Number of Controllers: 50</p> <p>Supported Platforms: VMWare ESXi, Microsoft Hyper-V, or open source KVM</p> <p><b>Network Access Switch</b></p> <p><b>Aruba 6100 24G CL4 4SFP+ Switch</b></p> <p>Description: 24x ports 10/100/1000BASE-T Ports; 4x 1G/10G SFP ports; Supports PoE Standards IEEE 802.3af, 802.3at; 1x USB-C Console Port; 1x USB Type-A Host Port</p> <p>Power Supplies: Fixed Power Supply; Up to 370W of Class PoE Power</p> <p>Fans: Fixed Fans</p> <p>CPU: Dual Core ARM Cortex A9 @ 1016 Mhz</p> <p>Memory and Flash: 4 GB DDR3; 16GB eMMC</p> <p>Mode Switching Capacity: 128Gbps</p> <p>Mode Throughput Capacity: 95.2 Mpps</p> <p>Average Latency (LIFO-64-bytes packets): 1Gbps: 1.5 µSec, 10Gbps: 1.8 µSec</p> <p>Switched Virtual Interfaces (dual stack): 16</p> <p>Inclusions:</p> <ul style="list-style-type: none"> <li>Accessories - 2x Aruba 10G SFP+ LC SR 300m MMF XCVR</li> <li>Warranty - Lifetime Warranty on parts and include Aruba 1Y FC NBD Exch 6100 24G CL4 SVC</li> </ul> <p><b>Network Core Switch</b></p> <p><b>Aruba 6300M 48G 4SFP56 Core Switch</b></p> <p>Description: 48x ports 10/100/1000BASE-T Ports; 4x 1G/10G/25G//50G SFP ports; 1x USB-C Console Port; 1x OOBM Port; 1x USB Type-A Host Port; 1x Bluetooth dongle to used with CX Mobile App</p> <p>Power Supplies: 2 Field-replaceable, hot swappable power supply slots; 1 minimum power supply required (ordered separately); Supports JL085A PSU</p> <p>Fans: Switch has two fan tray slots and comes with one fan tray installed</p> <p>System Switching Capacity: 880Gbps</p> <p>System Throughput Capacit: 660Mpps</p> <p>Model Switching Capacity: 496Gbps</p> <p>Model Throughput Capacity: 369Mpps</p> <p>Inclusions:</p> <ul style="list-style-type: none"> <li>Hot-swappable power supplies and fans - 2x Aruba X371 12VDC 250W PS</li> <li>Accessories - 2x Aruba 10G SFP+ LC SR 300m MMF XCVR</li> <li>4x Aruba 1G SFP+ LC SX 500m MMF XCVR</li> <li>2x Aruba 10G SFP+ to SFP+ 1m DAC Cable</li> <li>Warranty - Lifetime Warranty on parts and include Aruba 1Y FC NBD Exch 6300 48 SVC</li> <li>Support Services Renewal - HPE Foundation Care NBD Exchange SVC</li> </ul> <p><b>4. SERVER RACK TYPE</b></p> <p><b>Lenovo ThinkSystem SR530 Rack Server</b></p> <p>Form Factor: 1U Rackmount</p> <p>Processor: Up to two Intel Xeon Gen 2 Bronze, Silver, Gold, or Platinum processors; 1st Gen Intel Xeon processors are also supported</p> <p>Chipset: Intel C622</p> <p>Memory: Up to 12DIMM sockets (6 DIMMs per processor; six memory channels per processor with one DIMM per channel). Support for RDIMMs and LRDIMMs. Memory cannot be intermixed, Memory speed up to 2933 MHz depending on the processor selected</p> <p>Memory Capacity: Up to 768 GB with 12x 64 GB RDIMMs (up to 384 GB per processor)</p> <p>Inclusions:</p> <ul style="list-style-type: none"> <li>Accessories - AP-MNT-D AP Mount Bracket Individual D</li> <li>Warranty - Lifetime Warranty on parts and include Aruba 1Y FC NBD Exch AP-505 SVC</li> </ul>			

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		<p><b>5. SUPPLY OF NETWORK-ATTACHED STORAGE SOLUTIONS</b></p> <p><b>Synology SY-RS1221+ 2U 8 Bay Rackmount NAS with Synology SY-RKS-02 Rail Kit</b></p> <p>CPU: AMD Ryzen™ V1500B quad-core 2.2GHz  Hardware Encryption Engine: Yes (AES-NI)  Memory: 4 GB DDR4 ECC SODIMM (expandable up to 32 GB)  Compatible Drive Types: 8 x 3.5" or 2.5" SATA HDD/SSD  Hot Swappable Drives: Yes  External Ports: - 2 x USB 3.2 Gen 1 ports; 1 x Expansion port (eSATA)  Form Factor: Rackmount 2U  Size (HxWxD): RS1221+: 88 x 482 x 306.6 mm (with server handles)  Weight: RS1221+: 6.9 kg  Rack Installation Support: RS1221+: 2-post 19" rack (direct mounting), 4-post 19" rack</p> <p>LAN Ports: 4 x 1 GbE RJ-45  Wake on LAN/WAN: Yes  PCIe 3.0 Slots: 1 x 4-lane x8 slot; Supports 10GbE/25GbE Network Interface cards and M.2 NVMe SSD adapter cards for SSD cache  Scheduled Power On/Off: Yes  System Fans: 2 x (80 x 80 x 25 mm)  AC Input Power Voltage: 100 V to 240 V AC  Power Consumption: RS1221+: 49.98 W (Access), 22.64 W (HDD Hibernation)  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  Inclusions:  Hardware - 6x Synology HAT5300-12T 12TB Enterprise SATA HDD  Warranty - 3 years warranty on parts and labor</p>			
		<p><b>6. SUPPLY OF NETWORK GENERATION FIREWALL</b></p> <p><b>Sonic Wall NSa 2700 Secure Upgrade Plus - Essential Edition 2 years Firewall</b></p> <p>Interfaces: 16x1GbE, 3x10G SFP+, 2 USB 3.0, 1 Console, 1 Mgmt. port  Storage: 64GB M.2  Expansion: Storage Expansion Slot (Up to 256GB)  Logical VLAN and Tunnel Interfaces (maximum): 256  SSO Users: 40,000  Access Points Supported (maximum): 512</p> <p><b>Firewall/VPN Performance</b></p> <p>Fire wall Inspection Throughput: 5.2 Gbps  Threat Prevention Throughput 3.0 Gbps  Application Inspection Throughput 3.6 Gbps  IPS Throughput 3.4 Gbps  Anti-malware Inspection Throughput: 2.9 Gbps  TLS/SSL Inspection and Decryption Throughput (DPI SSL): 800 Mbps  IPSec VPN Throughput: 2.10 Mbps  Connections per second: 21,000  Maximum Connections (SPI): 1,500,000  MAX DPI-SSL Connections: 125,000  Maximum Connections (DPI): 500,000</p> <p><b>VPN</b></p> <p>Site-to-site VPN Tunnels: 2,000  IPSec VPN Clients (max): 50 (1000)  SSL VPN Licenses (max): 2 (500)  Encryption/Authentication: DES, 3DES, AES (128, 192, 256-BIT)/MD5, SHA-1, Suite B Cryptography  Key Exchange: Diffie Hellman Groups 1, 2, 5, 14v  Route-based VPN: RIP, OSPF, BGP  Certificate Support: Verisign, Thawte, Cybertrust, RSA Keon, Entrust and Microsoft CA for SonicWall-to-SonicWall VPN, SCEP  VPN Features: Dead Peer Detection, DHCP Over VPN, IPSec NAT Traversal, Redundant VPN Gateway, Route-based VPN  Global VPN Client Platforms Support: Windows 10  NetExtender: Windows 10 and Linux  Mobile Connect: Apple iOS, Mac OS X, Android, Kindle Fire, Chrome OS, Windows 10</p> <p><b>Security Services</b></p> <p>Deep Packet Inspection Services: Gateway Anti-Virus, Anti-Spyware, Intrusion Prevention, DPI SSL</p>			

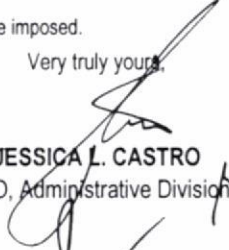
Stock, No.	Unit	Description	Qty.	Unit Cost	Amount
		<p>Content Filtering Services (CFS): HTTP URL, HTTPS IP, Keyword and content scanning, Comprehensive filtering based on file types such as ActiveX, Java, Cookies for privacy, allow/forbid lists</p> <p>The following documents shall be deemed to form &amp; construed as part of this agreement:</p> <p>Contract Agreement</p> <p>Philippine Bidding Documents</p> <ul style="list-style-type: none"> <li>- Schedule of Requirements</li> <li>- Technical Specifications / Terms of Reference</li> <li>- General and Special Conditions of Contract</li> <li>- Supplemental or Bid Bulletins</li> </ul> <p>Eligibility Requirements, Technical and Financial Proposal</p> <p>Performance Security</p> <p>Notice of Award</p> <p>Notice to Proceed</p> <p>Other documents may be required by laws</p>			

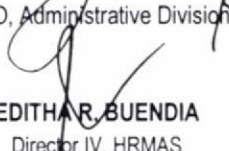
Total Amount in Words: **Seventeen Million Four Hundred Forty Nine Thousand Seven Hundred Pesos Only** Php **17,449,700.00**

In case of failure to make the full delivery within the time specified above, a penalty of one-tenth (1/10) of one percent for every day of delay shall be imposed.

Very truly yours,

Conforme:   
 (Signature over printed name)  
JAN 10 2024  
 (Date)

  
**JESSICA L. CASTRO**  
 CAO, Administrative Division

  
**EDITHA R. BUENDIA**  
 Director IV, HRMAS

Funds Available:   
**ARIEL J. UBIÑA**  
 Chief Accountant

ALOBS: 06-101101-2023-12-008  
 Amount: ₱ 17,449,700.00

This is to certify that this procurement was posted at Philgeps in compliance with RA 9184

  
**CHRISTIAN D. BUAT**  
 Admin Assistant I, Administrative Division