Republic of the Philippines
WESTERN MINDANAO STATE UNIVERSITY
Zamboanga City
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INVITATION TO BID

The Western Mindanao State University, through its Bids and Awards Committee (BAC), is inviting PhilGEPS registered suppliers to apply for eligibility and to submit bids for the item mentioned hereunder:

1.) 1 Lot **SUPPLY, DELIVERY, TRAINING, INSTALLATION AND CONFIGURATION OF FIBER OPTIC BACKBONE WIRELESS HOTSPOT AND BACKHAUL FOR THE WMSU CAMPUS**

A. EQUIPMENT

* 3 Rolls - G655 Fiber Optic 4 core with messenger, armoured (3000 m/roll)
* 1 roll - G655 Fiber Optic 2 core with messenger, armoured (2000 m/roll)
* 50 rolls - Fiber optic patchcord cable multi-mode LC/Upc - LC/Upc 1 & 3 Mtrs
* 40 units - 1.25gb SFP Module Switch Ethernet Fiber Optic Transceiver
* 4 units - 10gb SFP+ Module Switch Ethernet Fiber Optic Transceiver
* 6 units - Gigabit RJ45 SFP module Ethernet port SFP module Switch gbic 10/100/1000M connector SFP Copper RJ45
* 2 units - 24 Port Fiber Patch Panel ODF 1U Optical Fiber Terminal Box Optical Fiber Distribution w/ LC adapters with pigtails complete set slide type
* 15 units - 6 Core LC adapter Fiber Optic Termination Box 6 port FTTH optical fiber distribution box FTTH Sub-fiber optical cable box With LC Adapter and Pigtails Complete set
* 13 units - Data Cabinet 12U Wall Mountable
* 50 units - Cable Manager
* 100 units - Fiber Patchcord LC/UPC Connector
* 100 pcs - Fiber Sleeve
* 50 units - Dropcore Fiber Optic Cable Drop Wire Hook Clamp
* 6 rolls - CAT6 E UTP Cable
* 500 pcs - RJ 45 Connector
* 500 pcs- RJ 45 Rubber boots

*** 1 UNIT - Core Switch Layer 3 - 24 SFP/SFP+ - 1G/10G**

Specification:

* 20 Gigabit SFP
* 2 SFP+ 10Gb Uplink Module
* Rack Unit (RU) form factor
* RAM 4GB
* Flash Memory 2+GB
* Switching Capacity: 60+ Gbps

*** 2 UNITS - Switch Layer 3 - 12 SFP/SFP+ - 1G/10G**

Specification:

* 2 SFP+ 10Gb Uplink
* 10 SFP 1Gb
* RAM 4GB

* Flash Memory 2GB
* SFP Data Ports: Link/Activity
* 1U-sized, rack-mountable
* Switching Capacity: 40+ Gbps

*** 15 UNITS - Distribution Managed Gigabit Switch 16 port POE with 1SFP 1SFP+**

Specification:

* 8 Ports Gigabit RJ45 Ports 10/100/1000 Mbps RJ45 Ethernet Ports POE
* 2 Ports 1/10 Gbps SFP+
* Switching Capacity: 10+ up Gbps
* Forwarding Rate: 10+ Mpps
* RJ45 Data Ports: PoE, Speed/Link/Activity
* Supports PoE+ IEEE 802.3at/af and 24V Passive PoE 150W
* SFP+ Data Ports: Speed/Link/Activity

*** 1 UNIT - Wireless Gateway Router Controller**

Specification:

* 12-ports RJ45 and 4 SFP ports
* Pre-installed AP management with voucher capability
* Ram 8GB
* Storage 1GB
* 1.7 GHz quad-core processor
* Support 1000+ concurrent wifi client
* 1U-sized, rack-mountable console

*** 1 UNIT - MULTI-WAN & Bandwidth Bonding Router Appliance**

Specification:

* 5 Port Ethernet WAN ports Gb
* 2 LAN Ports GB
* Throughput: 4 Gbps
* L2TP / PPTP VPN Server
* Gigabit Ethernet
* Recommended users: 300 - 1000
* PTP, PPPoE, SMTP, DHCP, DNS
* 4 Gbps | SpeedFusion throughput: 500 Mbps
* 1U Rackmount

*** 8 UNITS - PTP Bridging Network Wireless Backhaul Radio With Antenna Dish Outdoor**

Specification:

* 1.2+ Gbps throughput
* Long-Range Point-to-Point (PTP) 100+Km
* Output power 29 dBm
* 30-34 dBi
* Channel width 100mhz
* Max PPS 2+ Million
* Data port 10/100/1000 Ethernet Port
* Config port 10/100 Ethernet Port
* PoE GigE Adapter; Passive Power over Ethernet
* 4.8 GHz - 6.2 GHz
* Pole Mount Kit

*** 50 UNITS - Access Point 802.11 Indoor**

Specification:

* 802.11ac Wave 2 Wi-Fi Standards
* 2 x 10/100/1000 Ethernet Ports
* Passive Power over Ethernet

* 500+ Concurrent Clients
* 2000+ mbps with range 100+ Meters
* Ceiling-mount type

*** 10 UNITS - Access point Dual-Radio outdoor**

Specification:

* 3x3 MIMO
* Simultaneous dual-band
* 2.4GHz throughput of 450Mbps
* 5GHz throughput of 1300Mbps
* 2 Gigabit Ethernet Ports
* 250 WiFi Clients
* Dual- 802.11ac
* 1500+ mbps with range 100+ Meters
* Wall mount type

* Miscellaneous Materials

* 1 Box - Electrical Wires Stranded Gauge 14
* 4 PCS - Electrical Tapes 2M
* 16PCS - Electrical outlet 3 Gang Industrial grade
* 5 PCS - Plastic Molding 2x2x8 inches
* 2 PCS - Race-way 2 X 4 inches

B. TRAINING

* During Installation: Conduct Shadow Training for at least least (3) IT WMSU-MISTO Personnel for the Network Equipment/switches, router and basic trouble shooting for the Structured Cabling and Data Center Infrastructure Facility.

* Post- Installation: Conduct free training for four (4) IT personnel of WMSU on the basic maintenance and operational requirements of structured cabling and the equipment.

TERMS OF REFERENCE:

A. PROJECT TITLE:

WMSU Campus wireless and connectivity using Air Fiber backhaul and Fiber optic Technology.

B. RATIONALE

Wireless smart campus will allow the students, faculty and administrative personnel to connect online systems such ticketing appointment system, Online E-Books Portal, E-enrollment apps for students which provides a seamless interconnectivity experience by using wireless and Fiber Optic Technology throughout campuses.

In order for WMSU to reach its ICT infrastructure plan, a teamwork with MISTO, DPO and MITHI office with some professional expert personnel is needed to plan and design IT infrastructure project title, "Fiber Optic Backbone and Wireless connectivity for the entire campuses".

With this, WMSU will outsource a supplier to facilitate the installation and configuration including commissioning and testing with in-depth expertise in IT infrastructure and structured cabling projects (Fiber optic, UTP cabling, CCTV) or Integrated Information System Projects.

The Supplier shall layout fiber optic cable to link all offices and colleges, install wireless equipment and all network related equipment with one

physical and virtual network: Annex A, Annex B and Annex C. Structured cabling of Data Center facility includes minimum units of the following equipment and services;

* Structure cabling
* Server U-rack cabinet
* Wall mount U-rack cabinet
* Network configuration
* Core network switch
* Wireless access point
* Configure Aggregate Switch/Router
* Wireless Unifi/centralized management system
* Wireless access point ticket system
* UPS for Servers and Network Devices (POE/non-POE)C.

C. OBJECTIVES

The Contractor for the structured cabling and Data center Facility shall:

1. Ensure unified connectivity and real time exchange of information.
2. Meet structure cabling best practices.
3. Ensure compatibility and allow open design for Wireless Technology (Wi-Fi) access
4. Ensure centralized/Unifi management for Wireless Technology (Wi-Fi) access points.
5. Ensure hand-over connectivity for Wireless Technology (Wi-Fi) access point in all buildings.
6. Agree and comply with WMSU standard facilities requirements (electrical, and cabling standards)
7. Provide technical trainings/briefings in the operations, troubleshooting and maintenance of structured cabling.

D. QUALIFICATION REQUIREMENTS

1. The Bidder had undertaken and completed at least (1) ICT or IS from the Government or Private project. Certification is requirement upon bidding.
2. The Supplier must have its own tools and test equipment.
3. Proposed Work plan and Detailed Execution Schedule for the Project covering the 90 calendar days' implementation period.
4. The Supplier shall complete the delivery and installation of work within Ninety (90) calendar days from the date of receipt of Notice to Proceed. An official project onset, which shall be done 7 days upon receipt of Notice to Proceed shall be called by the assigned Project Leader of the supplier, to present how it intends to implement the project.
5. The WMSU Network and IT Infrastructure Facility EVALUATION TEAM representatives shall meet and organize with the winning supplier for the different networking space requirements during the actual implementation of the Contract.
6. The Supplier shall guarantee in writing that the entire structured cabling and networks are free from all malfunctioning IT equipment and workmanship.
7. The Project leader assigned by the supplier must possess at least (1) of the certificate as follows: CISCO certified, LPI Certificate or any local or international certificate related to Networking installation and configuration.

E. HARDWARE

The Contractor shall provide, supply, deliver, install, test and commission the required quality IT hardware and render manpower services needed to operate the Network and Wireless devices of WMSU, specifically the

Hardware and related IT components compatibility.
All IT hardware equipment shall be in accordance with the correct specification and consistent with the Network Infrastructure Design.

F. HARDWARE SERVICES

1. Hardware installation/configuration of all nodes;
* Switch configuration
* Hardware Burn-in and diagnostic Test
* Structured Cabling
* Coordinate Work Plan with WMSU
* Uplink connection, configuration and Testing
* Coordinate VLAN designation
2. Installation and device configuration of necessary built-in software for all network devices. All Installation undertakings must include the following sub-activities:
* Site survey
* Submission of initial plan
* Hardware Testing
* Submission of test reports

G. DUTIES AND RESPONSIBILITIES OF CONTRACTOR AND / KEY PERSONNEL

1. Scope of Work and Activities
    * The contractor should allow shadow training for at least three (3) IT WMSU-MISTO Personnel for the Network Equipment/switches, router and basic trouble shooting for the Structured Cabling and Data Center Infrastructure Facility.
2. Pre-Installation
    1. Submit Work plan upon receipt of Notice to Proceed and after site visit inspection;
    2. Secure necessary work permits from WMSU-MISTO;
3. Installation
    Supply, deliver and install the required IT components as specified in the Work plan duly approved by MISTO-WMSU, following the Technical Specifications.
4. Post-Installation
    Conduct free training for four (4) IT personnel of WMSU on the basic maintenance and operational requirements of structured cabling and the equipment.

H. DUTIES AND RESPONSIBILITIES OF WMSU

1. Assist forthcoming bidders during the conduct of site survey
2. Assessment and approve the work plan submitted by Contractor.
3. Grant the Contractor's authorized representative access to its sites and facilities located therein to perform its responsibilities, provided that such representative shall be accompanied by the duly assigned WMSU personnel.
4. Discard any unit or any part thereof that fail to pass any test and/or inspection or do not conform to specifications.
5. Issue a Certification of Inspection and Acceptance upon determination by the WMSU Evaluation Team that the delivered and installed equipment and components are operational and in good working condition.
6. Provide at least (3) IT technical personnel to assist in the installation and configuration of IT equipment.
7. Provide electricians to assist in the installation of the electrical

wirings.

I. INSPECTION, TESTING, ACCEPTANCE

A. TESTING

1. All cables and termination hardware shall be 100% tested for defects in installation and to verify cable performance under installed conditions. Any defect in the cabling system installation including but not limited to cable, connectors, patch panels, and connector blocks shall be repaired or replaced in order to ensure 100% useable conductors in all cables installed.
2. Acceptable Fiber optic insertion/splice loss is below 0.1 dB.
3. Acceptable Fiber optic Data rate @ 550 meters higher than 1000mbps.
4. Acceptable Wireless Data rate higher than 1000+ mbps.
5. Submit the corresponding reports of the testing conducted.

B. ACCEPTANCE

1. A certificate of acceptance for any of the bid items shall be issued by MISTO only after completion of the scope of work and compliance to all the requirements.

J. ANNEXES AND REFERENCES

ANNEXES

A. Technical Specifications

B. Network Infrastructure

C. Site Plan (please see attached)

The criteria to be used for the eligibility check of the prospective bidders, examination and evaluation of bids, post-qualification and all matters relevant to this procurement shall be in accordance with Republic Act. No. 9184 (The Government Procurement Reform Act) and its Implementing Rules and Regulations.

Interested bidders may obtain further information from WMSU BAC Secretariat regarding the checklist of eligibility and technical requirements.

IMPORTANT NOTICE FOR BIDDERS:

1. Bidding papers may be acquired starting February 24 until March 18, 2022 from the BAC Office or download from website (www.wmsu.edu.ph). The WESTERN MINDANAO STATE UNIVERSITY shall allow the bidder to present its proof of payment for the Bidding Documents fees before the submission of their bids, pursuant to the latest Guidelines issued by the GPPB, in the amount of Ten Thousand Pesos (Php.10,000.00). (Please attached the machine copy of the Official Receipt)

2. All bidders' are required to post a Bid Security, at least Two (2%) Percent of the ABC in the form of Cash, Cashier's Check or Manager's Check or may submit Bid Securing Declaration. Bids without Bid Security will not be considered.

3. The Bidder shall prepare an original of the Eligibility Documents & Technical Components and original of Financial Proposal and clearly mark each "ORIGINAL – ELIGIBILITY DOCUMENTS and TECHNICAL COMPONENTS", and "ORIGINAL – FINANCIAL PROPOSAL", respectively. Bidders shall submit one (1) set of the first and second components of its bid. State the unit price of each item and the total bid price and also

state the shortest time of delivery and submit your quotation duly signed by your representative in a sealed envelope.

4. Pre-Bid Conference will be on **March 4, 2022, 2:00 PM** at BAC Office, WMSU, Ground Floor Executive Building, Zamboanga City and/or through video conferencing or webcasting via Zoom, which shall be open to prospective bidders.

5. Bid Submission will be on or before **March 18, 2022 at 10:00 A.M.** through **Manual Submission.**

6. Bid opening shall be on **March 18, 2022 at 10:00 A.M.** at BAC Office, Ground Floor Executive Building, WMSU, Zamboanga City, Philippines, 7000. Bids will be opened in the presence of the Bidders representatives who choose to attend at the address above. Late bids shall not be accepted.

7. Price validity shall be for a period of 120 calendar days.

8. Bidders shall submit original brochures showing certifications of the product being offered.

9. Warranty shall be for a period of Six (6) months for supplies and materials. One (1) year for equipment, from date of acceptance by WESTERN MINDANAO STATE UNIVERSITY.

10. Bids received in excess of the ABC shall be automatically rejected at Bid Opening.

The WESTERN MINDANAO STATE UNIVERSITY reserves the right to reject any or all Bids and to accept the bid most advantageous to the government, and to award the contract by lot, if warranted.