

#### 4. Documentation

- i. An as-built drawing shall be supplied by the contractor showing all the locations and identifiers for Horizontal cable routing and terminations and Telecommunications outlets/ connectors
- ii. The format shall be computer-based, and both soft copies and hard copies shall be part of the as-built package.
- iii. All records shall be created by the service provider and turned over at the completion of work. The format shall be computer-based, and both soft copies and hard copies shall be part of the as-built package. The minimum requirements include:
  1. Cable records must contain the identifier, cable type, and termination position at both ends, splice information as well as any damaged pairs/ conductors.
  2. Connecting hardware and connecting hardware position records must contain the identifier, type, damaged position numbers, and references to the cable identifier attached to it.
  3. Test documentation on all call cable types shall be included as part of the as-built package.
- iv. All reports shall be generated from the computer-based program used to create the records cited above. These reports should include but not limited to: Cable Reports, Cross-connect reports and Connecting Hardware Reports

#### 5. Passive Components

- i. Patch panel 1U – at least 10 pcs of 24ports each
- ii. Cable manager 1U – at least 10pcs
- iii. Patch Cords (factory terminated) 1meter – at least 218 pcs
- iv. Patch Cords (factory terminated) 3meters. – at least 218 pcs

## **B. ACTIVE AND PASSIVE COMPONENTS**

### **1. Precision Air-conditioning Unit (PACU)**

- PACU is based on Self-Contained In-row Cooling Architecture that captures hot exhaust air directly from the IT equipment, thereby increasing the unit's sensible cooling capacity over traditional cooling architectures.
- Horizontal airflow pattern which removes heat close to the source of generation in the hot aisle and distributes cold air to the front of the racks in the cold aisle
- It is Air-cooled, width is 300mm and preferably WHITE if color is available
- Should have properly installed Exhaust Duct Kit
- Have Automatic restart functionality that returns the unit to its last operating status in the event of a power failure.
- Fault-tolerant fan system in the event of a fan failure, the remaining fan(s) will continue to operate.
- Fans and electronics module can be readily replaced without uninstalling the unit.
- Should optimize efficiency through Variable-Speed Fan. Variable speed fans that reduce energy consumption during off-peak cooling periods.
- Have Multi-function LCD status and control console
- Should have a built-in Intelligent Controls Precise monitoring local and remote, intelligent control, friendly communication
- Should have Rack inlet temperature control that reduces the risk of hot spots at the rack level
- Active response controls that monitors and actively adjusts cooling capacity to ensure proper server inlet temperatures. Through the microprocessor controller, visibility into the operation and health of the unit is provided.
- Network interface that provides management by connecting the device directly to the network with a dedicated IP address, avoiding the need for a proxy such as a server. Management is available via Web browser, Telnet or SSH. Notification features inform you of problems as they occur.
- Has remote management of key alarm conditions such as fan failure and leak detection via SNMP, telnet, and web browser is possible with optional Remote Monitoring Unit, specifically designed for the High-Density Cooling Enclosure.
- The power to PACU must support single phase plus ground
- Should have Humidity and temperature sensors
- The unit can be combined with a Rack or Hot Aisle Containment System to eliminate hot air mixing and maximize cooling efficiency
- Should have Washable filters to easily maintain and clean. The deep loading mesh filter removes particles from the return air stream.

### **2. Server**

### **3. Server Racks**

**Should be the same brand with the PACU**

i. Proposed List of Devices for Rack 1

Devices	No.	Size (U)	Total
PLDT 24 ports ODF	1	1	1
Cisco 3900	1	3	3
Cisco 2900	1	1	1
Huawei Optix OSN 500 (PLDT)	1	1	1
Comclark Telco Systems	1	1	1
Huawei Optix RTN 605 (PREGINET)	1	1	1
Palo Alto PA 500	1	1	1
Juniper SSG 140	1	1	1
Dell PowerEdge R410	2	1	2
Dell PowerEdge R210	2	1	2
Dell PowerEdge R300	1	1	1
Apple Xserve PowerPC G5	4	1	4
Future Aruba wireless controller 7205	1	1	1
Future CCTV VMS SERVER	1	2	2
Future VOIP PBX	1	1	1
Future Fileserver (Record Management)	1	2	2
Future ITO server (CONVERSION DESKTOP SERVERS)	2	1	2
Future New UPS	1	4	4
		<b>Total =</b>	<b>31</b>

ii. Proposed List of Devices for Rack 2

Devices	No.	Size (U)	Total
Optical Distribution Frame	3	1	3
HP A5500 Series Switch JD374A	2	1	2
HP 2620-24 J9623A	6	1	6
3Com Baseline Switch 2226 SFP Plus	3	1	3
3Com Baseline Switch 2920 SFP Plus 3CRBSG2093	2	1	2
Liebert GXT 6kVA(battery to be replaced)	1	4	4
Future Switches Patch Panel	12	1	12
Future Optical Distribution Frame 48 CORE	1	2	2
Future HP A5500 Series Switch JD374A from Aruba Project	1	1	1
Total Size =			35

4. UPS battery, 12V, 9Ah
5. Air-conditioning Unit, 1 hp, Split Inverter Type
6. EIA 19-inch Rack
7. KVM set

### **C. After Sales Support**

#### **I. Warranty**

One year product warranty on its entire hardware products, including free parts and labor. The product warranty covers the components against defects in material or workmanship under normal and proper use, includes parts and labor coverage on cable and connecting hardware. Warranty shall also cover the immediate replacement of equipment (service unit) or defective parts free of charge.

#### **II. Support Services**

1. Technical support must be available 24 X 7.
2. Technical support response time must be 1 hour for phone support.
3. Technical support must also be available via the Internet and/or email.
4. The vendor must provide procedures on support and problem escalation.
5. When the hardware cannot be repaired on site within 24 hours due to extraordinary hardware difficulties, the bidder must provide service unit during the maintenance period.

#### **III. Project Implementation Support**

1. The winning bidder must deliver a Project Management Plan detailing the activities and estimated man-hours to implement the project. UP MINDANAO shall review and approve the plan. The Project Management Plan must include a Test and Acceptance Checklist that will be reviewed and approved by UP MINDANAO.
2. The winning bidder's Project Manager must be qualified with at least three (3) years experience in similar projects. Resume and certificate of employment should be submitted.
3. The bidder must coordinate with the IT personnel whenever new installations will be done.
4. The winning bidder shall define together with personnel of UP MINDANAO the configuration parameter requirements of the project.
5. During cut-over, the winning bidder and personnel of UP MINDANAO shall ensure that all applications are simulated and successfully tested. Winning bidder shall submit a report to ITO for validation and acceptance.
6. The winning bidder shall prepare and submit as-built documentation of implemented network set-up and configuration.
7. The winning bidder shall prepare final acceptance document that will be reviewed and approved within two (2) weeks after installation.
8. The winning bidder shall deploy switch(es) as service unit/s for the duration of warranty period after final acceptance in case there is a need to replace a defective unit.
9. The Bidder shall provide training for the IT personnel about the installation and configuration.

#### **IV. Pre-installation**

1. Submission of list of personnel who will be assigned to implement the project and with photocopy of ID – 3 sets;
2. Secure necessary permits for the work to be done, if any;
3. Documentation of existing connections
4. The technical and licensed personnel assigned to the project by the winning bidder should meet, present and discuss with UP Mindanao their work plans and proposed solution

## **V. Installation**

1. Supply, delivery and install the required components as specified in the Workplan;
2. Regularly coordinate with UP Mindanao's IT personnel for every phase of the project;
3. Complete the transfer of components from the old room to the new room within 24 hrs;
4. Complete the delivery, installation, configuration and commissioning of the entire project within forty five (45) calendar days from the receipt of the Notice to Proceed.

## **IV. Post-Installation**

1. Conduct free training for the IT personnel and other interested personnel of UP MINDANAO on the basic maintenance and operational requirements of structured cabling and the equipment and software supplied for a minimum of five (5) working days.
2. Provide at least one (1) copy of the technical manual/documentation (English) in printed hard copy and electronic (soft copy) formats. The documents include Cabling and equipment installation, operation, configuration and testing.
3. Provide at least 1 year warranty for all active equipment and components supplied.
4. Render support services to UP MINDANAO within the warranty period as follow:
  - a. Technical support will be provided through phone calls or email within regular working hours from Monday to Friday, 8:00AM to 5:00PM
  - b. On-site services shall be rendered within four (4) working hours after the problem has been reported. For problems reported after 4PM, services shall be rendered at 9:00AM of the following working day.
  - c. If the supplied equipment is found defective and need to be pulled-out, the contractor shall provide replacement with the same or higher specifications within 24 hours.
5. Rectify and or/replace any part that fail to pass any test/inspection or make alteration necessary to meet the specification.
6. Responsible and accountable for any damage caused solely by the Contractor or its agent to the UP MINDANAO as a direct result of the installation maintenance, and removal of any cabling components and devices.
7. Cleaning and clearing of sites. All debris or waste materials shall be immediately removed by the contractor from the UP MINDANAO premises with proper coordination with concerned unit of UP MINDANAO.

## **VI. DUTIES AND RESPONSIBILITIES OF UP MINDANAO**

1. Assist prospective bidders during the conduct of site survey – ITO Staff
2. Grant the Contractor authorized representative access to its premises and facilities located therein to perform its obligations, provided that such representative shall be accompanied by the duly assigned ITO personnel.
3. Reject any unit or any part thereof that fail to pass any test and/or inspection or do not conform to specifications.
4. Pay the Contractor in accordance with condition set in the Payment Scheme.

5. Issue a Certification of Inspection and Acceptance upon determination by the UP MINDANAO IT OFFICE that the delivered and installed equipment and components are usable and in good working condition

#### F. CODES AND STANDARDS

1. Work shall be installed according to the latest Philippine Electric Code (PEC), Plumbing Code, National Structural Code of the Philippines, Fire Code of the Philippines, the National Building Code and the "Compilation of Building Telecommunication Cabling Systems for Philippine Standards by BICSP".
2. Minimum technical standards covering the data center and structured cabling project shall adhere to, but are not limited to the following standards:
  - a. **Cabling and Components:**
    1. ANSI/TIA/EIA-568-C.0, Generic Telecommunications Cabling for Customer Premises
    2. ANSI/TIA/EIA-568-C.1, Commercial Building Telecommunications Cabling Standard
  - b. **Telecommunication Pathways**
    1. ANSI/TIA/EIA-568-B, Commercial Building Standard for Telecommunications Pathways and Spaces
  - c. **Grounding and Bonding**
    1. Philippine Electrical Code
    2. ANSI J/STD-607-A-2002, Commercial Building Grounding (Earthing) and Bonding Requirements for Telecommunications
  - d. **Administration and Labeling**
    1. ANSI/TIA/EIA-606A-2002, Administration Standard for Commercial Telecommunications Infrastructure
  - e. Contractor must have at least a (C / B / A / AA / AAA) - Category License issued by the Philippine Contractors Accreditation Board (PCAB), classified under SP-CF (Specialty - Communication Facilities) or SP-EE (Specialty - Electrical Works).
  - f. Contractor must have at least one (1) Employed Certified Professional of brand they offer to ensure that the solution provided and the system to be implemented is based to standards.