



**BIDS AND AWARDS COMMITTEE**

**SUPPLEMENTAL BID BULLETIN NO. 2025-005**

**March 21, 2025**

**Attention:**

All prospective bidders for the project: **E-LEARNING PLATFORM DEVELOPMENT WITH INTEGRATED DATA AND COMMUNICATIONS SYSTEM**

This supplemental bid bulletin is issued to clarify, modify, or amend the project title, ABC and quantity for the following project as discussed during the pre-bid conference of the said project:

<b>Particulars/ Concerns</b>	<b>Amendments/ Clarifications/ Response</b>
5.2 50TB Enterprise NAS with the minimum following specifications:	<b>5.2 50TB Usable Enterprise NAS with the minimum following specifications:</b>
13 IP PBX Solution Winning bidder shall supply 1600 units IP Phones, 1 unit IP Phone for Operator and 1 unit IP PBX Platform for BRHMC	<b>13 IP PBX Solution Winning bidder shall supply 122 units IP Phones, 1 unit IP Phone for Operator and 1 unit IP PBX Platform for BRHMC</b>
9.7 1 unit of WiFi Access Point (See item 9.5 for specifications).	<b>9.7 1 unit of WiFi Access Point (See item 6.7 for specifications).</b>
10.5 1 unit of WiFi Access Point (see item 9.5 for specifications).	<b>10.5 1 unit of WiFi Access Point (see item 6.7 for specifications).</b>
11.6 Must include 1 units of WiFi Access Point (see item 9.5 for specifications)	<b>11.6 Must include 1 units of WiFi Access Point (see item 6.7 for specifications)</b>
12.6 Must include 1 units of WiFi Access Point (see item 9.5)	<b>12.6 Must include 1 units of WiFi Access Point (see item 6.7)</b>
10.1 Must include 1-unit Interactive Display of at least 75” with the specifications below	<b>10.1 Must include 1-unit Interactive Board of at least 75” with the specifications below</b>
10.1.1 Must include 1-unit Interactive Display of at least 75” with the specifications below	<b>10.1.1 Must include 1-unit Interactive Board of at least 75” with the specifications below</b>
12.1.6 Must have 120 Hz Refresh Rate	<b>12.1.6 Must have 60 Hz Refresh Rate</b>
<b>Additional Specifications</b>	
	<b>10.1.1.27 Must have touch screen feature.</b>
	<b>10.1.1.26.6 Touch Screen Pen</b>
	<b>5.4 The enterprise-grade NAS solution must include a proprietary synchronization application compatible with MAC, Windows, and Linux System, Integrated with active Directory and LDAP for authentication.</b>
	<b>5.5 NAS System will be configured in cluster and high availability.</b>





Republic of the Philippines

**Mountain Province State University**

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### **17. Legal Clause for Data Center and System Development for the E-LEARNING PLATFORM DEVELOPMENT WITH INTEGRATED DATA AND COMMUNICATIONS SYSTEM**

#### **Article 1: Definitions**

1.1 **“End User”** shall mean the Mountain Province State University (MPSU) as the ultimate beneficiary of the Project deliverables, responsible for defining technical specifications, including but not limited to System development requirements, VLAN segmentation, IP addressing schemes, and network architecture.

1.2 **“Project”** shall encompass the Data Center Build-up, Electrical Systems, Cooling Systems, Structured Cabling, Systems Development, and Hardware Deliverables as explicitly defined in this Agreement.

1.3 **“Contractor”** shall refer to the party contracted to design, install, implement, and deliver the Project in accordance with the specifications, standards, and timelines set forth herein.

1.4 **“Deliverables”** shall mean all outputs, materials, and services to be provided under this Agreement, including but not limited to infrastructure, systems, hardware, source code, documentation, and consultation deliverables.

1.5 **“Force Majeure Event”** shall mean any event beyond the reasonable control of the Parties, including but not limited to natural disasters, acts of government, war, pandemics, or other unforeseeable circumstances rendering performance impossible or impracticable.

#### **Article 2: Scope of Services and Compliance**

##### **2.1 The Contractor shall execute all aspects of the Project in strict compliance with:**

(a) Applicable laws, regulations, and standards of the Republic of the Philippines, including the Civil Code, Building Code, Data Privacy Act of 2012 (RA 10173), Cybercrime Prevention Act of 2012 (RA 10175), and Intellectual Property Code (RA 8293);

(b) Industry best practices for data center construction, electrical and cooling systems, and structured cabling (e.g., ANSI/TIA-568 for





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cabling).

### 2.2 Electrical System Requirements

The Contractor shall design, install, and commission electrical systems to meet the operational demands of a university data center, including but not limited to:

(a) Redundancy: Dual power feeds with automatic transfer switches (ATS), and uninterruptible power supply (UPS) systems capable of sustaining 100% load for a minimum of 5 hours.

(b) Compliance: Adherence to the Philippine Electrical Code (PEC), NFPA 70 (National Electrical Code), and Tier III or higher standards per the Uptime Institute for fault tolerance.

(c) Monitoring: Real-time power usage monitoring systems integrated with the End User's building management system (BMS).

(d) Safety: Surge protection, and arc-flash mitigation measures compliant with IEEE 1584 and local regulations.

### 2.3 Cooling System Requirements

The Contractor shall design, install, and commission cooling systems to ensure optimal thermal management for 24/7 operations, including:

(a) Efficiency: Compliance with ASHRAE TC 9.9 guidelines for data center environmental conditions, maintaining temperatures between 18°C–27°C (64°F–81°F) and humidity levels of 20%–80% non-condensing.

(b) Scalability: Modular cooling infrastructure to accommodate future expansion of the data center.

(c) Monitoring: Integration with the BMS for real-time temperature, humidity, and airflow monitoring, with automated alerts for deviations.

**2.4 Structured cabling installations (CAT6 and Fiber Optic) shall adhere to professional standards, including:**

#### **1. Cable Management and Infrastructure**

##### **(a) Neat and Organized Cable Management:**

- Cables shall be routed through labeled cable trays, ladder racks, or conduits, maintaining segregation from power lines (minimum 12-inch separation unless shielded).



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- Use Velcro straps or non-abrasive ties for bundling; avoid zip ties to prevent cable deformation.
- Ensure proper bend radius (1-inch for CAT6, 10x cable diameter for fiber) and avoid sharp edges or pinch points.
- Boxes (Enclosures/Wall Boxes):
  - Install UL-listed, fire-rated enclosures/wall boxes for terminations.
  - Secure mounting with no exposed edges; ensure adequate space for slack storage and future modifications.
  - Plenum-rated boxes required in air-handling spaces.

### (b) Faceplates and Outlets:

- Use modular faceplates (e.g., 1-6 port configurations) matching the aesthetic of the environment (e.g., brushed stainless, white polymer).
- Terminate all outlets (RJ45 for CAT6, LC/SC/ST for fiber) to TIA-568-C.2 standards; ensure flush mounting with no gaps.
- Label each port on faceplates with unique identifiers (e.g., "DATA-01," "FIBER-A").

## 2. Termination and Testing of Voice/Data Connections

### (a) Proper Termination:

- CAT6 terminations: Use certified connectors with  $\leq 0.5$ dB insertion loss; maintain twists within 0.5 inches of termination.





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- Fiber terminations: Fusion splicing or pre-terminated connections with  $\leq 0.3\text{dB}$  loss; protect splices in labeled splice trays.
- Outlet terminations must pass wire-mapping tests with no split pairs or reversed polarity.

### (b) Testing and Certification:

- Perform end-to-end testing using calibrated equipment (e.g., Fluke DSX-8000 for CAT6, OTDR for fiber).
- CAT6: Verify compliance with TIA Cat6A (250MHz, 500MHz for 10GBASE-T), including PS-NEXT, ACR-F, and RL.
- Fiber: Confirm optical loss  $\leq 1.0\text{dB}$  per link (multimode) or  $\leq 0.5\text{dB}$  (singlemode); document reflectance levels.
- Test every outlet and patch panel port; provide certification reports for all links.

### 3. Labeling and Documentation

#### (a) Component Labeling:

- Label **all** cables, faceplates, outlets, boxes, patch panels, and enclosures per ANSI/TIA-606-B.
- Use machine-printed, laminated labels (e.g., Brady, Panduit) resistant to fading, heat, and moisture.
- Include:
  - Cable ID (e.g., "CAT6-01-A"), circuit designation, and destination/origin (e.g., "Room 101-Jack A").
  - Fiber strands labeled by core number and polarity (e.g., "FIBER-01-A-Tx/Rx").



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### (b) As Stake Plan:

- Document and submit a stake plan detailing the physical layout of all installed infrastructure, including pathways, conduits, and grounding systems.
- Include GPS coordinates or survey markers for critical underground/exterior components (e.g., conduits, handholes).
- Update the stake plan to reflect field changes and final installation conditions.
- Cross-reference stake plans with as-built documentation to ensure alignment with labeled components and pathways.

### (c) As-Built Documentation:

- Provide labeled floor plans, rack elevation diagrams, and a cable matrix mapping outlets to patch panels.
- Include test reports, warranty certificates, and manufacturer datasheets for all components (boxes, faceplates, outlets).

#### 4. *Quality Assurance and Compliance*

- All materials (boxes, faceplates, outlets) must be UL-listed and RoHS-compliant.
- Final inspection required prior to handover.

#### 2.5 Systems Development:

##### 1. **User-Driven Feature Inclusion:**

The final system **shall encompass all End User-required features** collaboratively defined during the consultation/collaboration phase, including but not limited to:

- Web-based architecture with mobile-responsive design interfaces to ensure seamless accessibility





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across modern browsers, devices (including smartphones and tablets), and operating systems.

### 2. **End User-Centric Design:**

End User personalization capabilities shall be embedded into the final system, allowing authorized users to configure interfaces, workflows, and preferences without requiring developer intervention.

### 3. **Validation Protocol:**

Prior to acceptance, the Contractor shall conduct rigorous cross-platform testing (web and mobile) to ensure functionality, usability, and compliance with accessibility standards. Final acceptance shall require written confirmation from the End User.

### 2.6 **Network Infrastructure:**

Final system architecture, configurations, and network design (e.g., VLAN segmentation, IP addressing) shall strictly follow the End User's specifications.

## **Article 3: Intellectual Property and Ownership**

3.1 All intellectual property rights, including copyrights, patents, trade secrets, and proprietary interests in the Deliverables, shall irrevocably transfer to the End User upon final acceptance of the Project and receipt of payment. This includes, without limitation:

- (a) Source code, object code, and APIs;
- (b) Database schemas, system designs, and technical documentation;
- (c) User manuals, architectural diagrams, and operational guidelines.

3.2 The Contractor warrants that no third-party intellectual property rights are infringed by the Deliverables. Any third-party components or licenses integrated into the system shall be disclosed in writing, with proof of valid licensing and usage rights provided to the End User.

## **Article 4: Data Ownership and Security**

4.1 All data generated, processed, or stored by the system shall be the exclusive property of the End User. The Contractor shall implement industry-





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standard security measures, including:

- (a) Physical safeguards (e.g., access controls, surveillance) for the data center;
- (b) Cybersecurity protocols (e.g., firewalls, encryption, intrusion detection);
- (c) Biannual security audits and vulnerability assessments post-deployment.

4.2 Contractor personnel shall execute non-disclosure agreements (NDAs) prior to accessing any sensitive information.

### Article 5: Performance and Milestones

5.1 The Contractor shall submit a project timeline, approved in writing by the End User, detailing:

- (a) Phased milestones (e.g., design approval, cabling completion, system testing);
- (b) Deliverable submission dates;
- (c) Testing and acceptance protocols.

### Article 6: Support and Maintenance

6.1 Post-delivery support shall include 24 months of maintenance covering:

- (a) Bug fixes and system updates;
- (b) Emergency technical support (24/7 response within 1 hour);
- (c) Optional extended support terms, subject to a separately negotiated agreement.

### Article 7: Indemnification

7.1 The Contractor shall indemnify, defend, and hold harmless the End User from all claims, liabilities, damages, or expenses arising from:

- (a) Breach of this Agreement;
- (b) Infringement of third-party intellectual property rights;
- (c) Negligence or willful misconduct in Project execution.

### Article 8: Force Majeure

8.1 A Party impacted by a Force Majeure Event shall notify the other Party in writing within five (5) business days, detailing the event's nature, expected duration, and mitigation efforts.

Performance obligations shall be suspended for the






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	<p>duration of the event.</p> <p><b>Article 9: Governing Law and Dispute Resolution</b></p> <p>9.1 This Agreement shall be governed by the laws of the Republic of the Philippines. Disputes shall be resolved through arbitration in Bontoc, Mountain Province, Philippines, with costs borne by the non-prevailing party.</p> <p><b>Article 10: General Provisions</b></p> <p>10.1 <b>Entire Agreement:</b> As part of our preliminary discussions during the pre-bid conference, this document reflects the Parties' current exploratory alignment and shared intent to collaborate. It is understood that no binding agreement exists at this stage, and any prior communications between the Parties are acknowledged solely as part of the negotiation process. Should we proceed to a formal agreement, this document will serve as a foundation for finalizing mutual commitments, which will then be exclusively governed by a definitive contract. Until such time, all terms discussed here remain subject to further negotiation, due diligence, and formal approval by both Parties.</p> <p>10.2 <b>Amendments:</b> No modification shall be valid unless executed in writing and signed by authorized representatives of both Parties.</p> <p>10.3 <b>Severability:</b> If any provision is deemed invalid, the remainder shall remain enforceable.</p>
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This shall form an integral part of the Bidding Documents.

  
**REYNALDO P. GAYO JR.**  
 Chairperson, Bids and Awards Committee