

Technical Requirements and Conditions

IB 2022-17 WEB HOSTING OF ELEARNING MANAGEMENT SYSTEM (eLMS)

I. Introduction

This project's technical requirements and conditions provides the description of the project, defines the technical specifications, requirements, terms and conditions as well as documentary requirements to support the procurement process.

II. Rationale

It is eminent that Covid-19 has a staggering impact on global education affecting 1.38 billion learners due to the closure of schools (Statista). This resulted in the Philippine's higher education institutions pushing readiness in new normal which would mean engaging in flexible learning. The Commission on Higher Education suggested the strengthening of online platforms and blended learning such as but not limited to Google classroom, Messenger, Zoom, Edmodo, Facebook, YouTube (CHED, 2020), and other technology-based content deliveries.

Benguet State University has engaged with various implementation activities on flexible learning using ICT however, on the part of adopting a dedicated learning management system, there is no full-featured and customizable eLearning Management System (eLMS) deployed at the moment.

This project therefor aims for the deployment of a full-featured and highly customizable open source eLMS which will be managed and maintained by the university under its own domain.

III. Scope of Work

The service provider shall:

- a. Host the eLMS of choice by the university. The eLMS shall be the latest stable version of Moodle eLMS
- b. Provide secured web and database server
- c. Provide a secured data center
- d. Provide 24x7 technical support services via phone and email
- e. Provide additional technical support other the standard technical support services
- f. Provide a single point of contact personnel

IV. Qualification Requirements of Service Provider

- a. Server hosting is one of its major service with proven track record
- b. Have at least two existing similar operational project (eLMS web hosting) with a government or private institution
- c. Have the capacity and ability to provide technical support within 30 minutes upon detection of fault
- d. Must have engaged in web hosting service for at least three (5) years catering to government agencies and private sectors

V. Technical Requirements

- a. Service provider must submit proposed IT infrastructure diagram/design
- b. Minimum server technical specifications:

Web server:

- 50GB of storage space, 5.25TB of bandwidth per month, 8 GB of guaranteed memory RAM, 2 Quad processors, CentOS, 10 domains plesk control panel with multiple versions of PHP.

SQL Server:

- SQL server specifications: 90GB+934GB= 1TB of storage space, 10.5TB of bandwidth per month, 24GB of guaranteed memory RAM, 2 Quad processors, CentOS, 10 domains plesk control panel with multiple versions of PHP

- c. Data/server security, scalability

- Package software management: antivirus, firewall, WAF, PHP security Layer, patch management, domain reputation with easy UI and advanced automation.
- Hypertext Transfer Protocol Version 2 (HTTP/2)
- Uses plesk web hosting control panel
- able to provide dual stack IPv4 and IPv6 for future scalability (faster network connections as both the end user device and the server use Public IP that does not need network address translation)
- have full multilateral peering with PHOpenIX
- Scalable server resources on-demand

- d. Data center security

- Has redundant internet connection, server hosting service with an uptime of 99.98%, multiple gateways to the internet (at least 4), premise security includes fire detection system, redundant air-conditioning system with anti-humidity, 24-hour power backup via UPS and generator sets, 24/7 hours technical staff on duty, facility has network monitoring systems.

- e. Add-on technical support service

- Conduct database backup at least twice a month, technical support of up to 5 incidents per month (e.g. reset server and other related tasks)
- Installation of preferred OS and eLMS as well as appropriate eLMS plugins and extensions. Includes configuration, customization, technical and administrative support for technical staff.
- Configure website domain name to *.bsu.edu.ph where the asterisk will be provided by the university

- f. Information System Testing

1. Upon server and eLMS deployment, the system will be tested for 3 working days. During the testing period, there must be no downtimes except for causes that is out of the university and the service provider's control.
2. If any of the foregoing conditions are not met, the testing period shall be reset until all conditions are satisfied continuously for 3 working days.

VI. Contract Period

The web hosting service is 1 year contract with additional 2 years free continuous hosting inclusive of identified technical support, subject to possible annual renewal thereafter if both parties agree.

VII. Duties and Responsibilities of the Service Provider

- a. Deploy the system as specified in the technical requirements in part IV
- b. Provide all admin user accounts to the university
- c. Conduct testing with the university until the product is accepted