Inviting Applications for Consultancy for VLP and Running & Providing Security Appliance by setting up Firewall Devices and Other Connectivity.
(AHEAD/RA2/ELTALESE/SEUSL/FAS/CON/10)

Faculty of Applied Sciences (FAS)

South Eastern University of Sri Lanka (SEUSL)
Accelerating Higher Education Expansion and Development (AHEAD) Operation

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1. BACKGROUND

Accelerating Higher Education Expansion and Development (AHEAD) Operation which is funded by the World Bank focus on expanding, diversifying and developing the higher education sector in Sri Lanka to drive economic growth through knowledge-based industrial and service sector activity and on producing graduates of global quality. The AHEAD program has three results areas and among those are the Enriching Learning, Teaching, Assessment and English Language Skills Enhancement (ELTA-ELSE). DP aims at improving the quality of higher education and has two main components: (a) academic and socio-emotional skills development1 and (b) enhancement of English language skills.

Brief Description of the System
Presently, there is a global trend toward promoting the integration of academic excellence and enhanced socio-emotional skills among university students, so that they are well prepared for the world of work, and for wider social and civic life upon graduation. In this line, the extracurricular scheme was proposed as one of the sub activities under Activity No. 06.1 to provide the virtual learning environment or platform to provide an online platform used for educational purposes. It encapsulates all the online environments that act as supplements to the course, whether they are online courses, reading resources and informational sites with stand-alone skill assessments, or other forms of virtual learning.

Moodle Learning Management System (LMS) will be used for VLE setup. Moodle is a platform for online learning that enables you to create online courses, add assignments, and keep an eye on your students' progress. It also allows you to communicate with the students and encourage communication between them in forums and discussions.

Sub activity 6.1 to provide security appliance by setting up the firewall and other connectivity. This will be provided next generation firewall services and provides security protection more than a firewall to the FAS network infrastructure. A security appliance is any form of server appliance that is designed to protect computer networks from unwanted traffic.

1.2. THE OPERATION

Consultant firm is expected to provide the VLP setup for FAS. This system should provide an online platform for the FAS students and contains both teacher and student portals. Moodle will be used for this VLP setup.

Basically, the Moodle (VLP) should have;

Moodle LMS is an open source, online Learning Management System which gives an option to the user to create their own private website filled with dynamic courses that extend learning, anytime, anywhere.

Moodle's extremely customizable core comes with many standard features. Take a look at a highlight of Moodle's core features below:

1.Customization: If you have internal staff who is willing to invest in Moodle development, or you are willing to pay for a high-end Moodle Partner package, Moodle is very customizable. Moodle also has many LTI integrations with other products and services.

2.Mobile: Moodle Mobile is the official app for Moodle and works on Android & Apple products. The Moodle web interface can also be customized to have responsive web design using HTML 5.

3.Live engagement: Moodle has a built-in chat functionality. There are also add-ins for most of the major synchronous learning tools, including Blackboard Collaborate & Ultra, Big Blue Button, Zoom, and WebEx. (Additional licensing may be required.)

4.Assessments: In this feature of Moodle all – assessments can be very rich, automated, and customized. Moodle's instructor quiz interface is a little solid & heavy and can take some time for instructors to learn.

5.Content repository: Moodle's repositories allow users to upload files to a course from a variety of outside file repositories, including Dropbox, Flickr, Google Drive, and traditional computer upload. Instructors can also search for files from any of their courses hosted on the same Moodle server.

6.Accessibility: Moodle's goal is to be fully accessible and usable for all users regardless of ability. That being said, some modules are fully accessible and some are not accessible. Instructors are individually responsible for ensuring that their content is accessible, such as PDFs and other documents.

7.Analytics: Moodle has a wide variety of reports and logs that allow instructors to track student progress and successes. These are generated at the course level, and instructors will need the training to use them well.

8.Tool variety: Moodle has a wide variety of tools available that can be turned on or off at the system level, such as gamification and publisher integration.

9.Course management (faculty): Depending on your site level options, instructors can highly customize their course setup and management. Instructors can use Moodle as a simple file repository.

10.Course management (administrator): You can integrate Moodle with your organization's SIS (student information system), but it is not turnkey. Because Moodle has a vast amount of customization options, you can choose to self-host and install pre-made customizations and create your own. If you don't have internal system support, you can pay a Moodle partner to host and support course management.

Consultant firm should develop and run the operation to facilitate the above activities. The developed Moodle LMS design will be reviewed by a committee appointed by the Faculty Board, FAS to ensure that the draft designs are in compliance with the expected outcomes. Finally, the final version of the design after incorporating the reviewer's comments should be submitted for the faculty board approval.

On the other hand, security appliance will provide several software blades,
I.   Firewall.
II.   IP sec VPN.
III.   URL filtering.
IV.   Application Controlling.
V.   Intrusion Prevention System.
VI.   Instruction Detection System.
VII.   Monitoring the network.

Further, the internet will be utilized much efficiently.

2. THE OBJECTIVE OF THE CONSULTANCY

- The objective of the consultancy is to develop the customization part for the need of the FAS, which is located around 25 km away from the main campus, (Oluvil premises).

3. SCOPE OF THE CONSULTANCY

The consultant firm should work with the activity coordinator and the FAS to elicit requirements and manage the software development life cycle including capacity building and knowledge transfer. The scope of the work will be as follows:

- Completely Setting the VLP system with all connectivity.
- Create login to staff and students.
- Migrate from SEUSL/Oluvil server LMS to local server FAS
- Test the web-based and mobile system
- Based on the feedback received from the testing by the real users, finalize the web-based application and prepare technical documentations and user manuals for orienting the users
- Finalize the users' manual based on feedback received from the end users

- Make the user manual as help file to online application so that user can refer to the manual as and when needed
- Host the VLP at FAS designated LMS server and hand over the documented source code, user manuals and training materials to the FAS with a plan of regular maintenance.
- Provide troubleshooting support for at least one year after handing over the setup. The support should be in person, over the telephone and via email, as and when necessary. At the end of the assignment, the FAS will have a fully functional web-based and mobile setup and FAS administrators will be able to maintain the system.

In addition to the above scope,
- FAS is a small network when compared to main university premises. Therefore, need an appropriate security appliance.
- Completely Setting the security appliance system with all connectivity.
- Doing all the configurations.
- Making existing pfsense which provides NAT & Firewall as backup firewall and connecting to the security appliance.
- Provide arranging the license agreement for the license renewal of the security appliance blade.
- Provide training for at least two staff.

4. DURATION OF THE ASSIGNMENT

The estimated duration of the consultancy assignment is six months (6) starting from the date of signing the contract

5. SCHEDULE FOR COMPLETION OF TASKS

Design needs to be submitted to the Project Coordinator (Activity 6) of the AHEAD ELTA/ELSE Faculty DP as per with the following schedule.

- Inception Report with updated project plan should be submitted both in soft and hard versions within 20 working days from the date of signing the contract.
- Draft of VLP & Security appliance implementation plan should be submitted in soft version within 40 working days from the date of signing the contract.
- training for the FAS IT related Staff and orientation training for the staff should conduct within 60 working days from the date of signing the contract.

6. DATA, SERVICES & FACILITIES TO BE PROVIDED BY THE CLIENT

ELTA ELSE AHEAD FAS will provide available data required for the consultancy and DELL Power Edge R440 server with 4TB ROM & 32 GB RAM, Windows Server 2019 Genuine, Academic License, Intel® Xenon® Processor E5-2470 (20M Cache, 2.30GHz, 8.00GT/s Intel® QPI) for the consultancy.

7. CLIENT'S INPUT AND COUNTERPART PERSONNEL

The selected consultant firm will be closely coordinated by Prof. A.M. Razmy Project Coordinator/ AHEAD ELTA ELSE Faculty DP.

8. REPORTING REQUIREMENS & TIME SCHEDULE FOR DELIVERABLES

The main duties and responsibilities of the consultant firm are summarized in the following table.

Key Task	Required Deliverable	Month					
		1st	2nd	3rd	4th	5th	6th
8.1	Submit Inception Report with the updated project plan	█					
8.2	Develop VLP and security appliance system plan and deliver as per technical requirements stated in the scope of work and agreed through SRS	█	█				
8.3	Conduct orientation training for the staff			█	█		
8.4	Conduct VLP and security appliance maintenance training for the FAS IT related Staff			█	█		
8.5	Deliver final product					█	
8.6	Deliver user's manual and training materials to the FAS						█

9. PROCEDURE FOR REVIEW OF DELIVERABLES

The selection process of the consultancy will be based on the set of criteria developed by the AHEAD ELTA ELSE Faculty DP, FAS, SEUSL technical evaluation committee to evaluate the EOI based on CQS method.

The selected consultant firm shall closely coordinate and report to Prof. A.M. Razmy (amrazmy@seu.ac.lk), Project Coordinator/ AHEAD ELTA ELSE Faculty DP.

10. TEAM COMPOSITION & QUALIFICATION REQUIREMENTS FOR THE KEY EXPERTS WHOSE CV & EXPERIENCE WOULD BE EVALUATED

Required Experience
Extensive experience in network design and security appliance provider.

Required professional competencies of the team:

- ➢ High level of computer and IT literacy
- ➢ Ability to coordinate and facilitate implementation of the VLP & Security Appliance Implementation.
- ➢ Ability to analyze and resolve implementation issues effectively
- ➢ Strong communication, negotiating skills and good interpersonal relations
- ➢ High level of proficiency in written and spoken English

Each criterion will be marked on a scale of 1 to 100. Then the marks will be weighted to become scores. The following weights are indicative. The actual percentage figures to be used shall fit the specific assignment and shall be within the ranges indicated below. The proposed weights shall be disclosed in the RFP.

Consultant's specific experience   10 points
Methodology   40 points
Staff   30 points
Transfer of knowledge   10 points
Participation by nationals   10 points
                          Total: 100 points

11. PAYMENT SCHEDULE

S.N.	Deliverable/Milestone	Percentage of the Contract Amount
1	Submission of Inception Report and SRS	5 %
2	Submission of Software setup developed as per technical requirements stated in the scope of the work and SRS	15 %
3	Providing and acceptance of server and security appliance device	50 %
4	Submission of the refined Final Version of the setup along with documented and final user manuals and training with materials	20%
5	Successful operation of one year after the delivery	10%

12. METHOD OF SELECTION

Appropriate method is Consultants' Qualification Selection (CQS)

Interested firms should visit the site to inspect and send their expression of interest along with their experience and human resource that portray their experience in VLP & Security Appliance by email to **amrazmy@seu.ac.lk** to reach before **18.10.2022**. Please indicate **"Applications for Consultancy for VLP and Running & Providing Security Appliance by setting up Firewall Devices and Other Connectivity"** on the subject of the email. Detailed proposals including technical and financial proposals will be invited from the shortlisted firms.

13. OWNERSHIP OF THE ASSIGNMENT

This assignment is funded by the Ministry of Education via AHEAD-OMST under the program component of AHEAD. As such, the University shall be the owner of the assignment and will reserves the Intellectual Property Rights for all deliverable of the assignment under the terms and conditions given in the IP policy of the University. The consultant will have no right of claim to the assignment or its outputs once it is completed and no rights to use Data and Information gathered through the assignment for other purposes without written permission from the Vice Chancellor. Any Reports/ Data/ Information produced as a part of this assignment shall be handed over to the Client in soft and hard forms.

Director
Operations Technical Secretariat
AHEAD Operation
South Eastern University of Sri Lanka