



Government of the People's Republic of Bangladesh
Prime Minister's Office
Old Sangsad Bhaban, Tejgaon, Dhaka
Access to Information Programme-II

REQUEST FOR PROPOSAL FOR

**SELECTION OF A FIRM FOR DEVELOPMENT, MAINTENANCE, GAMIFICATION, UPGRADATION
& DEVELOPMENT OF APPS OF SKILLS PORTAL**



**INVITATION FOR PROPOSAL No: 03.08.0000.801.07.153.17-3549 ; DATE: 30 NOVEMBER 2017
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Section 6. Terms of Reference (TOR)

Background

About a2i: A fundamental government responsibility is providing information and services aimed at improving the social and economic welfare of its citizens. During the first phase of the Access to Information (A2I) Project, fundamental progress was made in improving access to public services through electronic means. However, it is critical to expand the breadth and width of such simplified services and improve the service delivery model to counter the impact of widespread outdated manual processes, resistance to change by civil service staff and a lack of transparency that still frustrates citizens in their attempts to avail of government information and services.

The objective of the 2nd phase of the project is to increase transparency, improve governance, and reduce the time, difficulty and costs of obtaining government services for under-served communities of Bangladesh. This is to be achieved by the following 4 components of the project:

Component 1: Strengthening existing e-services and launching a second generation of integrated, inter-operable e-government applications; (e-Service)

Component 2: Sensitizing government officials, training for service providers and expanding digital literacy among the general public; (Capacity and Awareness)

Component 3: Forging strong policy and strategy links to ensure implementation of needed legal and regulatory changes in support of the project; (Enabling Environment) and

Component 4: Promoting innovation in the delivery of e-services. (Innovation)

The project is funded by the Government of Bangladesh, UNDP and other development partners, and is implemented by PMO and Cabinet Division.

Skills Portal: Bangladesh is growing enormously in terms of global socio economic indicators. Recently the country has achieved lower middle income status with huge potentiality to reach middle income level by the year of 2021. Thus from every aspects government is trying to focus on employment generation, production and market expansion for sustainable economic growth. The country needs to provide more focus on Skills for Employment. One of the significant agendas of Honorable Prime Minister's 'Vision-2021' is ensuring employment opportunities. Therefore, apart from other goals, working on 'Skills for Employment' is a crucial responsibility of a2i Programme. To reduce unemployment and underemployment rate and increase economic growth, it is necessary to create skilled workers and ensure their decent job through job placement.

Access to information and Government of Bangladesh has recognized the necessity for development of Skills Portal that will support the Apprenticeships Management System.

Bangladesh Apprenticeships Management System (BAMS) will conduct core business of making payments to employers and apprentices under the Bangladesh Apprenticeships Programme and the Government's new Trade Support. Importantly, network providers are also expected to engage regularly with employers and apprentices to track their progress and to engage face-to-face when important milestones arise or there are issues of concern. An opportunity will be given for network providers to offer innovative solutions to make the connection between employers and aspiring apprentices and trainees.

BAMS will provide a platform for these functions and services and facilitate the electronic storage of employer, apprentice, and service provider information, and make opportunity for the unemployed youth

Access to information a2i and the Government of Bangladesh is seeking proposals from the private sector to develop and deploy a system with significant e-business capability to streamline administration costs and reduce the need for paper-based processing and hard copy filing. Bangladesh Apprenticeships Management System (BAMS) will need to have online and e-business Skills Portal and authorization capabilities. Skills Portal platform must have the capability to be performed online via contemporary mobile computing platforms, such as web, tablets and smartphones.

Skills Portal related information

Key objectives of the Skills Portal:

- Develop an online Apprenticeship Platform for enlisting apprentice hiring process, benefits, available trades, trades specific CSLB/CBLM, Name of companies hiring apprentices with number of apprentices.
- The Skills Portal should have provision for Business to Apply for Apprenticeship training.
- Online registration to Bureau of Manpower, Employment and Training (BMET) for apprentice certification.
- Develop Data bank for all apprentice with enough tracking system.
- The Skills Portal should have provision for businesses, training institutes and tentative unemployed youths to post job vacancy, and apply for available training.
- A comprehensive tutorial archiving and management system to store all kind of audio/video tutorial for different occupation.
- The Portal should have a Success and failure Stories sharing section to encourage and create youth awareness.
- A dynamic blog needs to be developed for tentative trainee, Training institutes, Business Organization.
- The Portal should have a robust content management and archiving system
- Develop an Android mobile application for accessing the Skills Portal using mobile application.

Scope of Work (but not limited to)

1. Analysis and design a standard site map and template for Skills Portal.
2. Development of enterprise portal framework based on Open Source platform available, which is able to handle thousands of user contents in a sustainable way, providing the required features.
3. Create database, content structure, UI's and overall systems thoroughly and prepare a report with optimization plan for the contract period.
4. Ensure structured troubleshooting and maintenance continuity for the Skills Portal.

5. Develop gamification and other new features as per requirement of the site admin and owner.
6. Have the facility to conduct A/B testing, so that a2i can run simple online controlled experiments to assess the impact of presenting different content randomly to different users, to learn what is most effective.
7. Ensure development, design and implementation of new specific plug-ins to integrate the sites to other e-Service Systems.
8. Keep planning backup schedule for DB content and ensure its repository at client specified Data Center.
9. Accept problem solution request from specified layer of helpdesk agents and address the feasible requests providing with solution by necessary required customization.
10. Security: Protection & security of content, hosting environment, servers, network elements, access & network must be ensured.
11. Ensure sectoral usage Data bandwidth capacity, assessment of data load.
12. Mirror hosting: To be introduced as a full proof measure and can be done in collaboration with a2i nominated agency.
13. Ensure Instant Modular expandability option of cloud computing resources using cloud resource control & configuration panel.
14. Ensure Instant Internet IP address & bandwidth increase & expansion ready arrangement to accommodate scalability, user growth & integration to other systems.
15. Ensure System software back-up at DR site.
16. Assist & coordinate with A2i team to upload the content, application & DB. A2i would have full administrative control.
17. Monitor user experience of IP & Suggest performance development requirements supported by analysis & findings of such monitoring.
18. Conducting necessary ToT programme for 200 owners and administrators of this Skills Portal in 2 batches with 100 participants per batch.
19. Develop mobile version of Skills Portal. This version will be applicable in all types of portable/mobile or smartphone like devices.
20. Develop a new interface similar to National Portal Framework maintaining its standards and easy navigation.
21. Develop mobile Apps for Skills portal so that businesses and apprentices can use this portal according to their own need.
22. Add more gamification features like 'Best content developer of a week' consulting with access to information and BMET.
23. Develop notification system through mobile and email for latest model contents or best model content developer. Other features may can be incorporated in notification system.
24. Others:
25. Provide Version Control Solution, User Feedback Recording System, Incident Management Mechanism, CMS & DB tuning services for the aforesaid systems.
26. Internet resource availability: Readily available IP address pool and adequate Internet Bandwidth with instant enhancement option should be readily available.
27. Provision for scalable VMs, distributed Database system and accommodation for data mining space and database space for other required data stations needed for business intelligence data storage [MySQL/MariaDB].
28. Conduct a full requirement analysis to prepare the precise System Requirement Specification (SRS) for the development of Skills Portal.

29. Provide concrete development plan in the SRS including context diagram of the proposed system, Sequence Diagram, Use case Diagram, Process Flow Diagram, use case and other relevant diagram as per requirement.
30. There will be different types of user account like Super Admin, Admin, Applicant, Training Institute, Business Institute etc. to access and perform different activities of the system.
31. The system must have a user friendly interface providing Admin/ Super Admin user overall control of the system.
32. There will be a User Access/Role Management Module in place that will allow different types of users to use different system features according to their assigned role setting & access permissions as per designation or user type.
33. There will be videos, tutorials, news, and blog in the skills portal on related topics. In case of any issues, there will also be a Reporting option for users and the Feedback option will receive the opinion of the users regarding the entire portal.

Apprenticeship

34. The main user groups of this portal are:
 - Formal businesses seeking information or support on apprenticeships
 - Formal businesses hiring apprentices
 - Potential apprentices seeking apprenticeship and apply for positions
 - BMET to access or process apprentice registrations
35. The Skills Portal should have provision for all type of trade management, through which business will be able to request for new apprentice through job circular.
36. Businesses should able to find its local training service providers for off the job training.
37. Apprentices will be notified of apprenticeship vacancy/ job vacancy through the portal and view their application status.
38. There should be an Apprentice registration option for the apprentices to register and a statistical presentation of relevant data.
39. The trainees will open trainee account through which they can apply for apprenticeships and sign up to job circulars.
40. Businesses will open business account to seek information and support and hiring and registering apprentices.
41. Businesses will submit questions regarding the formal apprenticeship program.
42. Businesses will be allowed to see the steps of the hiring process in the skills portal.
43. Each business will also be provided a list of the trades on which they will be providing apprenticeship and offering job vacancies.

44. Businesses can apply for the orientation workshop for CSLBs through portal.
45. There will be individual CSLB (Competency based Skills log Books) and CBLM (Competency based learning Materials) in the skills portal and each business will download it based on the trade they will provide For hiring apprentices, businesses will post job ads/ circular in the portal.
46. Businesses will select apprentices based on their skills and job requirement.
47. The businesses will maintain a trainee list at the skills portal.
48. After registering, the apprentices can apply for training.
49. BMET will oversee the online registration of potential apprentices by hosting d-form, receiving digital copies of the d-form and sending back certificates. Make probable linkage with form portal in this case.
50. BMET will have access to all the information and they can also share it with related parties also BMET will answer the queries from businesses.
51. The skills portal will be an information hub for potential employees to have access to information and apply for positions.
52. Potential apprentices can view and submit case studies in the portal and they can also view / apply for jobs ('courses')
53. They can sign-up to different circulars and see their application status.
54. There should also be a FAQ (Frequently Asked Question) section to answer the relevant questions regarding the apprenticeship.

Other skills initiative

55. The Skills Portal will have a job vacancy circular option, through which businesses will be able to post job vacancy circular.
56. Training providers stating preferred trade and number of trainee per trade
57. The course application should have all the relevant data regarding the entire course.
58. The general dashboard should also include content (audio/video), blogs for making it more useful to users.
59. The trainees can sign up and choose trade as per their demand.
60. Businesses can circulate trade wise job requirement in the portal.

Training Service Providers can available trade related information, number of training per trade and the timeline regarding the training.

Supervision and Performance Evaluation

Awarded vendor will be working with A2I Skills for Employment team. Technical issues will be supervised by Technology Specialist, Access to Information – II Project under administrative supervision of e-Learning Specialist.

Timeframe and deadlines

The duration of the assignment will be 18 months in total.

Reports

The activities done by the vendor will be regularly monitored by the Policy Expert of the Project and a monthly progress report will have to be submitted.

Project Deliverables

- Inception Report including Action Plan & Detailed implementation Methodology.
- Software Requirement Specification SRS.
- Skills Portal Development
- Android Development.
- Software Deployment on test server for UAT, Training Server and Live Server.
- User Manual.
- Knowledge transfer through daylong workshop.
- Provide End User Training to ToT.
- Source code & database in a CD.
- Completion report including upcoming challenges if any.

Technological Specification

- Need to use Open Source Development Platform.
- PHP based platform with tool architecture like Bootstrap, framework like CakePhp/Laravel/codeigniter can be used for web application.
- Needs to use native mobile application development language such as Java for Android Objective-C.
- Future technology Change, iterative prototyping and agility in product design are the generic expectation.
- Technology and all related design/data will be open to a2i.
- Need to work in IDE with a2i Tech Team.
- The vendor should follow any of the industry standard secure development methodology such as (but not limited to) Comprehensive Lightweight Application Security Process (CLASP) by OWASP etc. The vendor should consider (but not limited to) common vulnerabilities such as SQL Injection, Cross Site Scripting (XSS) etc. Vendor will undertake responsibility for Input Validation Controls, Authorization/Authentication Control and other security controls in place in both test and production environment of application.

Payment and Timing

The deliverables are as follows and will be the basis for the evaluation of the milestones and the payment methods tranches (tranches in brackets). The payment will be made in favor of the awarded person/firm-

Deliverables	Timing	Payment milestones
Submission of the Inception report & SRS	1 st month	25%
successfully completion of UAT phase	5 th month	25%
completion of the end user training	6 th month	10%
Regular maintenance and development report and update feature list along with gamification and mobile version developed	9 th month	10%
Regular maintenance report and gamification phase-2 and developed a new interface similar to National Portal Framework maintaining its standards and easy navigation. Developed mobile Apps for skills portal so that potential trainee and businesses can use this portal according to their own need.	12 th month	10%
Regular maintenance report and gamification phase-3 development. Add advance chatting and forum option so that potential trainee and businesses can chat individually or also create group for chatting. Admin control need to be ensured in chatting. Add notification system through mobile and email for latest model contents or best model content developer. Other features may can be incorporated in notification system.	15 th month	10%
Incorporate online training and live class module. Final delivery of report, handover the whole system with all source code and other resources.	18 th month	10%