



Terms of Reference

BANGLADESH SERVICE APPLICATION PLATFORM (BSAP) DEVELOPMENT AND POST-DEVELOPMENT SUPPORT

Access to Information - II
Prime Minister's Office
Government of Bangladesh

1. Introduction

The government has a vision of reforming through use of technology in conducting administrative operations inside the agencies to enable efficient rendering of services and to allow accessibility of these services to the citizens. An online one-stop government service application platform can make government services easily accessible to citizens where they will be able to select and apply for relevant services, make payments for them easily and get delivery of these services. It can be a means of cutting red tape, improving service delivery, engaging public sector employees and getting faster results for citizens.

The National Web Portal Framework (NPF) was developed to ensure online accessibility of citizens to information related to all the government agencies. It is a single platform of all government websites including ministries, other agencies and different tiers of filed administration from division to union. Forms Portal is one of the major integral service delivery platform linked to the National Portal Framework and constitutes a unique platform to get access to application system for Government Services online. Forms portal contains around 1500 G2C service application forms in either HTML or PDF format.

Information intelligence and decision management through ICT are two driving factors to have data driven governance and hence Office Information and Services Framework (OISF) was initiated to form a technology umbrella to accommodate different solution architecture required for e-services in office management. An operational solution architecture has also been developed which is called e-Nothi (Filing and Decision Management Solution). e-Nothi is developed to render filing, workflow management, decision management and data intelligence service to Government agencies, citizens and to other electronic system needing such common services. Thus, the OISF and e-Nothi have formed a composite Enterprise Solution Architecture and work as the back-end decision management solution to online forms.

A2i is planning to build a platform enhancing the forms container so that it can act as the service application technology backbone irrespective of availability of back-office solution. As all GoB agencies do not have technology back-office in place, online application platform will be designed in such a way that will create a technology echo-solution among electronic forms, e-file, national portal and existing back-office solutions.

2. Objective of the assignment

The overall objective of the assignment will be the following:

- Develop a whole-of-government technology solution platform for G2P service application irrespective of agency specific back-office solution.
- Transform GoB forms into HTML/Web format from Word Format/PDF/existing Web System.
- Integrate this platform with National Portal Framework, Office Information & Service Framework (OISF), Land Information & Service Framework (LISF), Grievance Redress System (GRS) and other relevant e-service or service infrastructure within the Government.
- Create electronic monitoring and service assurance analytics to supplement good governance.
- Ensure provisioning for required integration like online P2G payment.

3. Scope of work highlights

3.1 Development of BSAP:

The contracted firm will develop Bangladesh Service Application Platform (BSAP) along with the associated solution development/support. Major components of this assignment are as follows:

- a. Study, Analyse, Design and develop Bangladesh Service Application Platform (BSAP). Major feature of this platform includes the following major features:
 - i. Study, analyse, understand and undertake full source code and business knowledge of existing government forms portal (www.forms.gov.bd)
 - ii. Re-design the appearance of this portal as enterprise model in collaborative study with a2i and a2i nominated agencies.
 - iii. Develop Agency specific service inventory profile and electronic management of tracking service deliveries. Integrate citizen's charter of the agencies with tracking system to ensure timely delivery of services.
 - iv. Service specific online citizen application UIs along with its managements.
 - v. Redesign/Reconfigure existing 150 HTML forms those are already in www.forms.gov.bd portal to make them available in this platform.
 - vi. Convert or develop 1500 PDF forms that are already in the forms portal into web forms. In addition, convert or develop forms available as hard copies to make them available as online applications in this platform.
 - vii. Each application form will have configurable steps of submission subject to the step analysis during system study. But fundamental steps include – Basic Information as per CCDS (Citizen Core Data Structure of Cabinet Division), NID Verification through API (optional), payment, get connection to agency level back-end/email system, OISF/E-file through API, retrieving service info from national portal etc. Some applications may need to have 2 factor authentications (optional and configurable factors).
 - viii. Submission of service application through this platform needs to have some queue management at both back-end and browser level, document attachment facility, UI level standard security at submission and standard front-end validation as per business logic.
 - ix. Applications those are added to this platform having no agency level back-office solution may need to have special technology arrangement for email and SMS integration as the communication back-office with the agency. Application to email and vice versa will be required.
 - x. Role-based access control (RBAC) mechanism, integration with OISF and LISF, linking with National Portal and Grievance Redress System (GRS).
 - xi. Applications in this platform can have requirements of online payment at any step of submission or at post submission. Vendor needs to facilitate API to get it integrated to payment gateway (s) or payment processor (s) retaining secured session management, secured audit trail and managing transaction reconciliation system in this platform. In

case of offline payment, this platform will facilitate uploading scanned evidence of payment with evidence identification data. There needs to have provision for mobile financial services transaction from 3rd party solutions and this platform will have API communication with MFS systems for their tracking dashboard access. A2i will facilitate administrative collaborations among the parties.

- xii. Vendor needs to develop a standard integration parameters/API along with integration document for the agencies who will deploy any back-office system but application system is available in the proposed BSAP.
- xiii. Online forms repository with searching intelligence
- xiv. Office Organogram, Geo Information, profile of officers and government office info data structure will follow OISF.
- xv. Accessible from both PC and Mobile devices, browser independent and mobile responsive.
- xvi. API manager to integrate with external back-office solution if any government agency has its own e-service solution and UIs for application.
- xvii. Configurable service application monitoring system comprising of – applicant dashboard, government level (multi-layered) monitoring dashboard, analytical dashboard and open data layer. System needs to have application tracking system.
- xviii. Provision for SSO through OISF and/or NPF, e-File to get access to this platform.
- xix. Provision for adding new application form without changing the technology structure using configurable UIs.
- xx. Explore API services needed to get integration with other customized office/service management solutions and enterprise technology frameworks in place.
- xxi. Develop data intelligent back-end platform that will render data services to analyse service concentration area, domain, service owner and such at the possible level of data subject to the scope perimeter analysed during system study.
- xxii. To get access from 5000+ digital centres of the country, this BSAP platform will have API integration with Digital Centre Service Solution sharing service application basic data with that system subject to proper security and authentication compliance.
- xxiii. System will have optional and configurable mode of notification (email, SMS) for both service providers and service recipients. Vendor will provide technology consultancy to configure email server in this regard. Cost of SMS and Email are not included in this scope.
- b. Develop knowledge product such a software design document, SRS, Data Dictionary, hosting specification, test cases, sizing plan, data management/archiving plan, data migration plan, technical administration guide, user manual, and training manual;
- c. Training for implementation for master trainers (approximately 50 users in approximately 2 batches)
- d. Post development configuration, sizing, maintenance and troubleshooting support within the contracted period.

- e. Adjust and update system in compliance with any Security test, Load Test or IT Audit conducted by the client.
- f. Selected vendor will have to coordinate with other solution development teams working with dependent solutions/platforms. A2i will provide administrative support.

3.2. Post Development

Contracted vendor will ensure post development Maintenance, Support, change management and version control services that will include the following:

- a. Continuous health check of Database, tuning database, tuning codes & queries and mitigating the issues.
- b. Recording, managing reporting issues and user level application related technical problems received through the method prescribed by a2i, develop and deploy necessary solutions.
- c. Updating training manual adjusting the changes in the system.
- d. Fixing all bugs in the system irrespective of its nature and complexities.
- e. Provide active operational support to update system in compliance with Digital Signature incorporation and respective changes by the government.
- f. Developing, recording and reporting change documents, source code management and version management.

3.3. Post-Hosting Sizing Support by the Vendor:

- a. Providing active and operation support to Data Center in application/DB sizing the product reconciling and adjusting with user-base and number of offices.
- b. Regular database tuning and application configuration support to hosted environment.
- c. On-demand accountable consultancy support to Data Center in terms of Data Backup Scheduling, Back-end service execution, Server Configuration for DB/Application/Load Balancing.

3.4. Capacity Management and Knowledge Transfer by the Vendor:

- a. Facilitate monthly workshops with client team for knowledge transfer.
- b. Provide technical consultancy to the client for operational management during implementation.
- c. On-demand facilitation of system update information to client as mini-training session (Quarterly and/or in case of major changes executed)
- d. Provide authentic access to client experts to source code and documents.

4. Technology Specification

4.1 Development platform

- a) Fully MVC Framework.
- b) CakePHP as its development framework is preferred (Vendor can propose any other platform) with MySQL as its DB. There must have capacity of this system for future usage of other RDBMS and NoSql DB.
- c) It needs to be a light-weight Web-based application having browser interoperability with rich client-side scripting.

4.2 Security

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 for both test and production environment of application.

5. Duration of the assignment

1. **Total Duration of the assignment is 24 Months. First 8 months for Software Development, Testing and piloting. Remaining 16 months for other services as mentioned in the ToR.**
2. Selected Vendor will have to sign separate SLA and Non-discloser agreement as part of the core agreement for this 24 months.
3. If performance of the vendor is not satisfactory within first 8 months, client can terminate the contract as of ending 8 months of services with one month's prior notice.