

Letter of Invitation

Invitation No: 56.83.0000.006.07.015.23. **636/1**

Date: 15/06/2023

2. Shohorab Ahmed Choudhury, Managing Director, SYNESIS IT LTD. Level 3, BDBL Bhaban, 12 Kawran Bazar, Dhaka 1215

Dear Mr. /Ms.:

1. The Government of the People's Republic of Bangladesh has allocated public funds for the cost of Aspire to Innovate (a2i) Programme and intends to apply a portion of the funds to eligible payments under the Contract for which this Request for Proposal (RFP) Document is issued.
2. The Project Director, Aspire to Innovate (a2i) Programme now invites proposals to provide the following consulting services: Subject: Hiring a Consulting firm for The Court Order Record and Certified Copy (Sub ordinate court). More details on the services are provided in the Terms of Reference.
3. This Letter of Invitation and the RFP Document has been issued to the following short-listed Consultants:

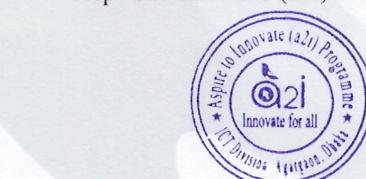
1	Dream71 Bangladesh Ltd. Hyatt Rose Park (Level-5), House-16, Block-A, Bashundhara Main Road, Bashundhara R/A, Dhaka 1229, Bangladesh.
2	SYNESIS IT LTD. Level 3, BDBL Bhaban, 12 Kawran Bazar, Dhaka 1215,
3	Orange Business Development Limited, House 171 (3rd Floor), Lane-1, Baridhara DOHS, Dhaka-1206
4	Computer Network Systems Limited, Plot No. 1098, Road No. 6D, Avenue No. 08 DOHS, Mirpur, Dhaka-1216.
5	JV between, eGeneration Ltd and Tappware Solution Limited, Ranks Business Center Level 9, Ka-218/1, Pragati Sarani, Kuril, Dhaka 1229, Bangladesh.
6	JV between SOFTBD LTD, 8th & 13th Floor, 52/1 Hasan Holdings Limited, New Eskaton Road, Dhaka-100 & Olivine Limited, House-310, Rd No 21, New D.O.H.S. Mohakhali, Dhaka 1206
7	JV between Mars and DSi 177, Lane 2, New DOHS, Mohakhali, Dhaka 1206

It is not permissible to transfer this invitation to any other Consultant or Firm.

4. A Consultant will be selected under Quality and Cost Based Selection (QCBS) and procedures for selection are described in the RFP Document.
5. In addition to the Letter of Invitation, the RFP Document includes the following Sections:
 - Section 1: Instructions to Consultants (ITC)
 - Section 2: Proposal Data Sheet (PDS)
 - Section 3: General Conditions of Contract (GCC)
 - Section 4: Particular Conditions of Contract (PCC)
 - Section 5: Proposal & Contract Forms
 - Section 6: Terms of Reference (TOR)
6. Please inform us in writing, preferably by electronic mail, at the following address tender@a2i.gov.bd, upon receipt:
 - (a) that you have received the Letter of Invitation and the RFP; and
 - (b) whether you will submit a Proposal alone or in association with any other Consultant.

Yours sincerely,

Dr. Dewan Muhammad Humayun Kabir
Project Director (Additional Secretary)
Aspire to Innovate (a2i) Programme.



*Aspire to Innovate (a2i) Programme
Information & Communication Technology (ICT) Division
ICT Tower, E-14/X, Agargaon, Dhaka-1207*

REQUEST FOR PROPOSAL (NATIONAL) FOR SELECTION OF CONSULTING FIRM FOR SOFTWARE & IT ENABLED SERVICES

Hiring a Consulting firm for The Court Order Record and Certified Copy (Sub ordinate court)

(Complex Lump-sum)

**Invitation for Proposal No: 56.83.0000.006.07.015.23.636
Issued on: 15-06-2023
Proposal Package No: SD-43/22-23**

Hiring a Consulting firm for the Court Order Record and Certified Copy

CH6



Section 6. Terms of Reference (TOR)

TERMS OF REFERENCE

for

Hiring a Consulting firm for the Court Order Record and Certified Copy

1. Background

The Government of the People's Republic of Bangladesh has taken several initiatives for making the country digitally empowered in the field of technology by ensuring Government services available to citizens electronically as well as transforming the country digitally empowered in the field of technology. In collaboration with Government and the Supreme Court of Bangladesh Judicial offices, A2i has brainstormed an idea to introduce a centralized Court Order Recording and Certified Copy system for ensuring the availability of judgement, court order and other document electronically from anywhere and anytime.

Two types of certified copies are frequently provided through Copying departments. For preparing the certified copy apart from the copying department individual courts and court administrative office have to go through a long and time-consuming process which is a major barrier to provide speedy and cost-effective justice to the citizens.

The Court Order Record and Certified Copy will be a part of the Judiciary that will be established to provide services to the citizens, lawyers, government and non-government organizations, financial institutions, judges and court officials, and other stakeholders. One of the major goals of this project is to ease the process of getting and transferring certified order copies and court records. The certified copy provided through the proposed system will be used for any governmental and non-governmental official purpose. Therefore, verification system of to confirm authenticity of the certified copy has been ensured.

The ultimate purpose of this platform is to ensure accessibility, accountability, sustainability, scalability, and reliability of court certified order copy access process and to accelerate beneficiaries' satisfaction.

2. About the organization

Hiring a Consulting firm for the Court Order Record and Certified Copy



Aspire to Innovate (a2i), a whole-of-government program of the ICT Division, supported by the Cabinet Division and UNDP, catalyzes citizen-friendly public service innovations, simplifying government and bringing it closer to the people. It supports the government to be at the forefront of integrating new, whole-of-society approaches to achieve a digital society. The project's objective is to increase transparency, improve governance, and reduce the time, difficulty, and costs of obtaining government services for the underserved communities of Bangladesh.

3. Objective

Detailed Objectives are as follows:

- 1 The Court Order Record and Certified Copy will reduce the Process Backlog of the Order Recording system also ease access to accessible the certified copy
- 2 The Court Order Record and Certified Copy are segregated by the core system users such as citizens, Lawyers, Judges, Court Officials, and any other relevant stakeholders.
- 3 The Court Order Record and Certified Copy system will be designed in such a way that will reduce the redundancy in service development components by utilizing/reusing services through API manager.
- 4 Design and develop all the Components and modules of the platform in compliance with micro service architecture compliance so that it is reusable by other external systems, solutions and platforms
- 5 To establish a mobile first strategy in the Judicial system, by developing mobile application for both android and iOS platforms or by Integrating with the "Amar Adalot" existing mobile app.
- 6 Overall, to reduce time, cost, and visit for preparing and approval process of the certified copy of the Judicial of Bangladesh.

3.2 Scope with functional requirements

Overall Scope of Work for The Court Order Record and Certified Copy Management System is divided into the following sections;

- 3.2.1 **Platform development:** The development firm will develop the Court Order Record and Certified Copy management system.
- 3.2.2 **Integration:** This project will have an integration scope to establish the integration among all stakeholders (i.e., Judicial Related agencies and applications).
- 3.2.3 **Support & Maintenance:** Provide support to the system and establish a Standard SLA for operational support.

3.3. Platform development

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Selected development partners will have to go through a comprehensive requirement analysis phase and prepare system requirement specifications acknowledged by all the relevant stakeholders. We have categorized the platform and solution requirements in the following feature:

- Order record Management
- Certified Order Copy Template Management
- Certified Copy Authentication Verification System
- Payment Management
- Access Point Management
- Stakeholder Notification Management
- Digital Signature/ e-Signature Management
- Report Management
- Role Based System Access
- Analytic Dashboards
- Validation and verification
- Mobile Application Development

3.4 Order record Management

Order Record Management: In the Order Record Management System the following feature will be present

3.4.1.1 The User will be able to create two types of order copy

3.4.1.1.1 Interim Order

3.4.1.1.2 Full Order

3.4.1.2 The User will be able to transfer the order copy from one court official to the next one

3.4.1.3 The Copying department User will manage and track when the order copies are being transferred to them

3.4.1.4 The final order copy will be transferred to the Administrative Officer (AO) for Attestation of authenticity by putting sign and seal.

3.4.1.5 Once the copy is authenticated it is ready for delivery and the applicant gets the notification and receives the copy from the Copying department.

3.4.1.6 The system should provide different user level dashboards.

3.4.1.7 System should provide searching, tagging, and archiving functionalities for the files.

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- 3.4.1.8 System should provide an editor so that multiple users can edit the order related document during drafting.
- 3.4.1.9 The editor should keep the history for a certain period of time until it becomes a final document.
- 3.4.1.10 System should provide features to share the document attachments to other user without sending the file.
- 3.4.1.11 The admin user should be able to revoke the permission of the user.

3.4.2 Certified Order Copy Template Management: In the Certified Order Copy Template Management system the following feature will be present

- 3.4.2.1 The certified order copy is generated, the user will be able to select a particular template for preparing the certified copy
- 3.4.2.2 The user can either follow the assigned case template or use the default template provided for every case
- 3.4.2.3 The user will also be able to change the original template wording in such a way that it fits their case purpose

3.4.3 Copy Authenticity Verification (QR code)

When transferring the copy from one system to another, a QR code verification is required. Hence this system will contain a QR code module

- 3.4.3.1 When the user transfers the document over to another court official user, a QR code needs to be present in the document
- 3.4.3.2 The user will also confirm the document by checking the QR code through a scanner
- 3.4.3.3 The user also needs to insert their digital signature in the document created and process it further.

3.4.4 Payment Management

The overall system must have a payment management system including the following features

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- 3.4.4.1** The citizen will pay through both offline and online payment management systems the court fees amount to get the case files, without proper complete the payment the citizen cannot receive a certified copy.
- 3.4.4.2** The user will be notified of the payment and will provide the copy either by mail or print/download and provide a hard copy.
- 3.4.4.3** The court fees of the certified copy will vary depending on the parameterized calculation.
- 3.4.4.4** The Payment Management System will collect money through the Judicial's digital payment system and manually.

3.4.5 Access Point Management

- 3.4.5.1** All the certified copies that are being generated need to be kept secure, hence access will be limited to all the officials based on the case involvement list.
- 3.4.5.2** The user will get access to a certified copy only if they are responsible court officials who are authorized to the process.
- 3.4.5.3** The authorized user can only provide the document directly to the citizen.
- 3.4.5.4** The following portals can however be used as the access point for citizens and lawyers:

3.4.5.5 Citizen Portal

3.4.5.6 Lawyers Portal

3.4.5.7 Kiosk (provisional)

3.4.6 Notification Management

The Stakeholder Notification Management module must have the following

- 3.4.6.1** When they are assigned a new certified copy
- 3.4.6.2** a document is sent to them for revision purposes
- 3.4.6.3** When payment has been made to them

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3.4.7 Digital Signature/e-Sign Management

The following features need to be present to maintain the signatures provided by the court officials:

- 3.4.7.1** Need to provide initially 100 e-sign for the honorable judges and other court officials with two years of validity.
- 3.4.7.2** should provide a facility to put the signature as per rule.
- 3.4.7.3** While signing there should be an option available of 2FA as per user preference.
- 3.4.7.4** Should include the provision of integrating dongle based/soft digital Signature.

3.4.8 Report Management

The Report Management will contain the following features:

- 3.4.8.1** The user will be about to get a report on the following;
 - 3.4.8.1.1** The number of certified copies provided to the citizen
 - 3.4.8.1.2** The number of paid certified copies
 - 3.4.8.1.3** The number of certified copies generated
 - 3.4.8.1.4** Number of copies waiting for user approval.

- 3.4.8.2** The user can view the report as an infographic or tabular form.

3.4.9 Role Based System Access

To ensure the secure and authentic access of the system it should enhance to provide the following features:

- 3.4.9.1** Create a central directory for the court staff
- 3.4.9.2** Provide a configurable Two Factor Authentication (2FA) access
- 3.4.9.3** Provide a configurable user group creation and permission assigned.
- 3.4.9.4** Provide an audit log of the system access

3.4.10 Analytic Dashboards:

The analytic dashboard will create a provision for generating different types of customized reports which may include the following:

3.4.10.1Court-wise, District-wise, Zila-wise customized report

3.4.10.2The total number of certified copy applications summarized reports in different formats.

3.4.11 Certified Copy validation and verification panel:

3.1.11.1 The system has the facility to court staff can verify the certified copy

3.1.11.2 Citizens can verify the authenticity of documents online.

3.4.12 Mobile Application Development

3.4.12.1 myCourt app (amar adalot) now act as a one stop access mediums of Judicial services for the citizen. myCourt app in both android and iOS platform has been developed.

3.4.12.2 The firm will be updating the existing app to facilitate the citizen, lawyer. Applicant can apply for the court order and certified copy.

3.4.12.3 Judicial Officials will be able to view their permitted order record and certified copies list, and update status.

3.4.12.4 The App will provide information related to order record and certified copy.

3.4.12.5 The app will have notification, status, monitoring, checking, verification facility

3.5 Integration

For system-to-system communication it will be necessary to provide combined easy and managed API access with full API governance and analysis;

- 3.5.1 Systems should have the ability to build and publish APIs/Services to a selected set of gateways in a multi-gateway environment.
- 3.5.2 System should support enforcement of court official and Judicial system policies for actions like API/Service subscriptions, application creation, etc., via customizable workflows.
- 3.5.3 Manage API/Service visibility and restrict access to specific agencies or systems.
- 3.5.4 Manage API/Service lifecycle.
- 3.5.5 System should generate JSON web tokens for consumption by back-end servers.
- 3.5.6 System should provide a developer portal to search APIs by provider, to provision the API keys, subscribe API, notification for new version of subscribed APIs and view of the API consumer analytics.
- 3.5.7 System should have high performance pass-through message routing with minimal latency.
- 3.5.8 System should provide a pluggable analytics framework for API usage, like, requests, responses, faults, throttling, subscriptions etc.
- 3.5.9 System should track consumer analytics per API, per API version, per tiers and per consumers.
- 3.5.10 Systems should have configuration payment schemes to monetize API usage.



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- 3.5.11 System should monitor SLA compliance for the API.
- 3.5.12 System should have provision to do the proper/required integration with the SSO System.
- 3.5.13 System should have a live API monitoring dashboard.

The firm will need to integrate the following Systems:

Sl-No	External System	Integration Scope
1	Judicial Service Delivery Platform	The firm needs to analyze the integration scope and do the necessary enhancement if required to integrate with the Judicial Service Delivery Platform
2	Cause list	The firm needs to analyze the integration scope and do the necessary enhancement if required to integrate with any Cause list
3	Judicial Monitoring Dashboard, Judicial Portal	The firm needs to analyze the integration scope and do the necessary enhancement if required to integrate with Dashboard, Portal (including citizen, lawyer, and other portals)
4	Judicial Digital Payment System	The firm needs to analyze the integration scope and do the necessary enhancement if required to integrate with Judicial Digital Payment System
5	Judicial Digital Archive	The firm needs to analyze the integration scope and do the necessary enhancement if required to integrate with Judicial Digital Archive

3.6 Support, Maintenance, and Change Management

3.6.1 Maintenance and Support

The selected firm has to provide proactive maintenance and support services that will cover the followings areas:

- 3.6.1.1 Provide Post development support services under structured SLA and Change Management Architecture.
 - 3.6.1.2 Continuous health check of Database, tuning database, tuning codes & queries and mitigating the issues.
 - 3.6.1.3 Recording, managing reporting issues and user level application related technical problems received through the method prescribed by a2i, develop and deploying necessary solutions.
 - 3.6.1.4 Fixing all bugs in the system irrespective of their nature and complexities.
 - 3.6.1.5 Develop new reports as per new requirements based on existing DB Schema.
- Hiring a Consulting firm for the Court Order Record and Certified Copy



[Signature]

- 3.6.1.6 Enhance and/or re-arrange existing features of extended development of any supplementary feature within the existing technology framework complying with core SRS.
- 3.6.1.7 Support & Maintenance will cover fixing all bugs and system errors as and when identified by the system users.
- 3.6.1.8 Support and improve Role-wise credential system incorporation for better user role management.
- 3.6.1.9 Firms shall implement auto backup and database archiving systems to meet the challenge of system recovery, in case of any disaster or missing data.
- 3.6.1.10 The firm's team will work at their office premises or in case of specialized requirement, they may work at the a2i premises or any a2i designated location.
- 3.6.1.11 The hired and assigned IT personals for support & maintenance must be regular employees of the firm company
- 3.6.1.12 Ensuring inter agency e-service integration/deployment readiness support to the agencies by deploying readiness assessment manager;
- 3.6.1.13 The Firm should introduce (install/enhance or develop) a centralized customer relationship management (CRM) tool by which users (basically, service provider type users) will have access to support service to open support tickets and track tickets for resolution through helpdesk.
- 3.6.1.14 Providing active and operation support to Data Center in application/DB sizing the product reconciling and adjusting with user-base and number of offices.
- 3.6.1.15 Regular database tuning and application configuration support to hosted environments.
- 3.6.1.16 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.
- 3.6.1.17 FAQ for most commonly asked questions and answers.

3.6.2 Change Management and Version Control

- 3.6.2.1 Developing, recording, and reporting change documents, source code management, and version management.
- 3.6.2.2 Adjust and update the system in compliance with any IT Audit conducted by the client.
- 3.6.2.3 Incorporating and streamlining the system in compliance with updated versions of development tools/language/DB and ensuring availability of APIs as required for integration with other services.
- 3.6.2.4 Ensure all levels of testing prior to executing changes in the production environment.

3.6.3 Multi-layered support from firm

The firm will provide multi-layered user support which will cover following activities:

- Layer 1 Support from the firm:
 - Attain Phone Calls, checking e-mails
 - List problems and initial troubleshooting
 - Classify problems
- Layer 2 Support from the firm:
 - Issues investigate
 - Update Issue Tracking Tool (CRM)
 - Escalate issues to 3rd Level
- Layer 3 Support from the firm:
 - Bug Fixing: Source Code Modification, Database structure Change

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- Transactional Data Fixing
- Wrong activities corrections
- Systems Monitoring
- 3rd level issues investigate and resolve and necessary Change Management.
- Regular System Maintenance

3.6.4 Minimum SLA terms to be complied

The firm needs to comply the minimum Service Level Agreement (SLA) Terms & Conditions (subject to further discussion) during Maintenance Period are given below:

- Deploying dedicated Support Engineers 9AM to 9PM (without Holiday) to address support issues.
- A service failure or severe degradation when users are unable to access any portal will be treated as **Critical Issue Level-1** and the firm should response immediately that will not exceed 12 hours (subject to the discussion).
- A partial service failure or mild degradation when bug is creating significant impact to existing portal or application integration will be treated as **Critical Issue Level-2** and the firm should response immediately that will not exceed 24 hours (subject to the discussion).
- General Issues when uses are able to access all portal will be treated as **Critical Issue Level-3** and the firm should response immediately that will not exceed 24 hours (subject to the discussion).

3.6.5 Back-end processing system and monitoring

- Design and develop back-end processes and process monitoring tools.
- Enable System Admin users to configure and schedule the back-end process.
- Ensure proper monitoring of the back-end processes and necessary notifications Apart from the above-mentioned issues, if the firm thinks any other issue to be included in their plan, it would be considered as added value addition

3.6.6 Quality Assurance and testing activities

- The Consulting firm will setup Sandbox for system test.
- Unit Testing, Integration Testing, System Testing, Load Testing and Acceptance testing at every phase of the project.
- Ensure Security testing of the system at a regular interval not more than six months by a third-party organization.
- Fix the necessary security holes.

3.6.7 Infrastructure

3.6.7.1 Post Development

The firm is requested to submit propose their smooth, efficient and effective Post Development plan in this technical proposal which will include following:

- Continuous health check of Database, tuning database, tuning codes & queries and mitigating the issues.
- Recording, managing reporting issues and user level application related technical problems received through the method prescribed by a2i, develop and deploy necessary solutions.
- Developing, recording and reporting change documents, source code management and version management.

Apart from the above-mentioned issues, if the firm thinks any other issue to be included in their plan, it would be considered as added value addition.

3.6.7.2 Post hosting support

The firm requested to submit propose their smooth, efficient and effective Post-Hosting Support plan that will include the following ():

- Regular database tuning and application configuration support to hosted environment.
- On-demand accountable consultancy support to Data Center in terms of Data Backup Scheduling, Back-end service execution.

Apart from the above-mentioned issues, if firm thinks any other issue to be included in their plan, it would be considered as added value addition

3.6.8 Technology Knowledge Transfer

The contracted firm will ensure capacity management that will include the following:

- 3.6.8.1** The firm will develop a technical and operational manual to operate and manage the platform.
- 3.6.8.2** The firm will develop a comprehensive risk matrix before launching a new service in order to determine the impact.
- 3.6.8.3** The firm will commit to a plan for data, Judicial court order record and certified copy maintenance and development handover. A set of guidelines will be provided by the firm so that any standard resource will able to take over a task when it is required.

3.6.9 Capacity management:

Contracted firm will ensure capacity management that will include the following:

- 3.6.9.1** The firm will develop technical and Operational Manual to operate and manage the platform.
- 3.6.9.2** The firm will develop a comprehensive risk matrix before launching a new service in order to determine the impact.
- 3.6.9.3** The firm will commit a plan for data, support of judicial service delivery platform, data maintenance and development handover. A set of guidelines will be provided by the firm so that any standard resource will able to take over a task when it is required.

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- 3.6.9.4** The firm will collaborate developing Service Level Agreement (SLA) with relevant parties which will
- 3.6.9.5** create a win-win environment both for the firm and other stakeholders in long term.
- 3.6.9.6** The firm will prepare guidelines and standard practice and will facilitate training programs for technical experts for system integration and further development of the service delivery process.
- 3.6.9.7** The firm will provide resource persons, training material & training for capacity development in collaboration with a2i. The venue, logistics, and invitation will be managed by a2i and Respective Authority.

3.6.10 Workshop & training plan:

The firm is required to have an extensive and long-term workshop and training plan incorporating both on-site and off-site (online) training for different types of users and maintenance staff. The firm will plan for arranging the necessary workshop as described below. The preparation of the workshop may include Workshop Plan, Stakeholder Communication, and so on.

The timing will be determined by a2i at the convenience of the stakeholders. The firm needs to keep in mind that they will have to consider Types of Users, System Modules, Number of Users, Number of Batches, Per Batch Training, Time (hours), Total Training Time (hours), and so on in their training plan.

Workshop/Training Name	Objectiv e	Number of workshops to be conducted
Requirement Analysis Workshop	<ul style="list-style-type: none"> • To collect requirements of the Judicial court order record and certified copy existing system • To collect idea and decision from Domain Expert of Judicial System • To identify and finalize scope of works from the mitigate level. • To align IT team to communicate with stakeholders in a language they understand. 	01
UI/UX Workshop	<ul style="list-style-type: none"> • To specify the new design of the Judicial court order record and certified platform user interface in collaboration with Judicial stakeholders as well as UI/UX experts. • To arrange expert UI/UX teams, Domain Expert, Concern Judicial officers, and Relevant Stakeholders in collaboration with a2i through a workshop for taking decisions regarding UI/UX issues. 	01
Capacity Management Orientation Program (TOT)	<ul style="list-style-type: none"> • To provide a set of guidelines for using the system for relevant officials of the judiciary/ • To transfer technical knowledge for external user, Judicial official and relevant stakeholders. 	01



4 Technology Requirements

The service provider should manage the infrastructure deployed for the “Order Record and Certified Copy” which includes operating systems, databases, virtualization technologies, load balancer, database replicator, high availability and load balancing cluster solution, storage technology, middleware platforms, etc. to ensure availability, performance, cost effective utilization and security of the system. The service provider should ensure 99% availability/uptime of service.

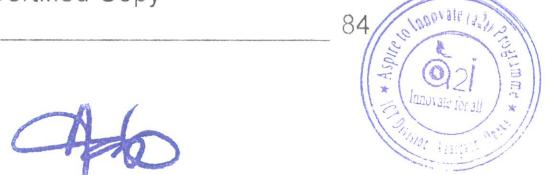
4.1 High Level Deployment:

- 4.1.1 A Back-End Database will be used for all sorts of operations. This will be the central repository of the data.
- 4.1.2 The API server: This will host the core application with business logic and open up API's request
- 4.1.3 with required features. This will sit in between the Database and any application server.
- 4.1.4 Application Server: A web application or any other smart device app server that plays data commissioning role as a consumer of the API repository.
- 4.1.5 Front-end: A very rich interface using JavaScript is a must to make the system user friendly and cutting edge.
- 4.1.6 A notification System: This will push notifications to the apps. e.g. when an application creates a notification, an alert will be generated on the dashboard without refreshing or calling by repeating Ajax/Applet Request.

4.2 Technology Tools:

The firm will follow any industry accepted and widely used open source-based technologies, frameworks, platforms, and guidelines. Following are some technical specifications that firms should consider as references but not as the ultimate method of implementing the court order record and certified copy. Technology Specifications may change in real-time based on the context of the project and future trends.

- 4.2.1 Micro service architecture following micro-service design approach.
- 4.2.2 Programming Language Open-Source (PHP, Java, python ect), standard framework based development.
- 4.2.3 eService bus (Enterprise Service Bus) or RESTful API gateway.
- 4.2.4 Rule-based authorization support for SSO (i.e oAuth, oAuth2, SAML, Open ID connect etc)
- 4.2.5 Bootstrap, jQuery and Ajax for best UX
- 4.2.6 MySQL or any other open-source RDBMS
- 4.2.7 Redis, Memcached, CDN or Varnish for caching and faster data delivery
- 4.2.8 Must ensure load balancing for scalability and failover for high availability of service endpoints
- 4.2.9 Code Version Controlling using GIT or Bitbucket in private mode
- 4.2.10 Future technology change, iterative prototyping and agility in framework design are the generic expectation
- 4.2.11 Kubernetes, for source version control and deployment management.
- 4.2.12 Cloud compatibility
- 4.2.13 TOGAF compatible or similar open-source platform to ensure enterprise level management



4.3 Security:

The firm should follow any of the industry standard secure development methodologies such as (but not limited to) Comprehensive Lightweight Application Security Process (CLASP) by OWASP etc.

- 4.3.1 The firm should consider (but not be limited to) common vulnerabilities such as SQL Injection, Cross Site Scripting (XSS), etc.
- 4.3.2 Firm will undertake responsibility for Input Validation Controls, Authorization/Authentication Control, and other security controls in place in both test and production environments of the application.
- 4.3.3 The following vulnerabilities must be checked and ensured security from the beginning:
 - 4.3.4 Cross Site Request Forgery (CSRF)
 - 4.3.5 Cross Site Scripting (XSS)
 - 4.3.6 Session hi-jacking or Session Fixation
 - 4.3.7 SQL Injection
 - 4.3.8 Input Validation/Filtering
 - 4.3.9 Output Escaping
 - 4.3.10 Code Injection
 - 4.3.11 Secure File Access

4.4 Accessibility Checklist

SL.	Items to Check	Details
1.	For anything on a web page that is not text, is there any text equivalent for that item?	<ul style="list-style-type: none"> • Anything that does not text on a web page usually includes, but is not limited to, an image, graphic, audio clip, applets (small application running within a web browser, i.e. text chat window, etc.), tickers, or other feature that conveys meaning through a picture or sound. Examples include buttons, check boxes, pictures and embedded or streaming audio or video. • Providing a text equivalent means that words are being used to describe what an item (that does not physically consist of text) actually is, why it is there, and any information being communicated by the use of that item or the item itself. • Check that all images have accurate and meaningful text equivalents. Images mostly use an “alt-tag” or “longdesc” attribute as part of the object. To check, mouse users can roll their cursor over an image. If a text label or window pops up, then it has a text equivalent. Screen reader users can listen to see if an image is identified and described. It is also acceptable to simply include a text description above or below the image. For example, “The picture below shows...” • Ascertain that images of text, graphical text (pictures of text), or text that is part of an image have a text equivalent. Be sure that the text equivalent correctly describes the image or communicates any information as part of the image. For example, if the image itself contains words, be



		<p>sure the exact wording from the image is used within the text equivalent.</p> <ul style="list-style-type: none"> • Ensure any audio has a text equivalent, such as a text transcript.
	<p>Is captioning, audio descriptions, or other equivalent provided for presentations that utilize both audio and video at the same time?</p> <p>Is captioning, descriptions, or other alternatives synchronized with the presentation?</p>	<ul style="list-style-type: none"> • Determine that all audios have been captioned for the deaf and hard of hearing, and all videos have audio descriptions for blind and visually impaired. • Ascertain that captions and audio descriptions are synchronized correctly with the audio and video. For example, synchronized captions allow someone to read captions and also watch the speaker's relevant body language. • Remember that this only applies to multimedia presentations, i.e., those presentations utilizing both audio and video at the same time. For example, the audio and video web cast of a program would need to be synchronized. An audio web cast would require a text transcript. A silent (no audio) web slide show would require a text equivalent for any images.
3.	If color was removed, would it inhibit use of the web site?	To check, view the page using a monochrome monitor (ex. black and white monitor, etc.) or by printing a page to a black and white printer.
4.	Is color being used to emphasize text or indicate an action?	<p>If so, an alternate method needs to be included so users can identify what is being emphasized by the use of the colored text or action.</p> <p>For example, if all links on a web page are blue, than underlining the links is an acceptable method for identifying blue colored links. Another example, if users are prompted to press a green start button, than a text label above the green button saying "press green start button" is an acceptable method.</p>
5.	Do web pages ignore user defined style sheets?	Style sheets are formatting instructions on how a page should be displayed (can also include how it is printed and presented). For example, a user specifies that they want their browser to view pages with extra-large font with white characters on a black background. These preferences are set up for all pages viewed.
6.	Does a web page override or ignore user settings?	To check, disable style sheets within the browser (Check browser's help menu for instructions) or try changing the font size or background colors through the browser's settings.
7.	If a link is embedded in an image, is there an equivalent text link?	<ul style="list-style-type: none"> • Frequently, a web designer will use an image map which contains a link or set of links. • Check to see if the image has any text links or labels. In some cases, you may have to move the mouse around the image to see if different text labels appear over different portions of the image. Screen readers will announce

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		<p>“image map link...” when a link is detected. These text labels alert users that by clicking or selecting the link in this particular region of the image, it will retrieve a specific web page. This is an example of a client-side image map which can be quite accommodating to people with disabilities and those using assistive technology.</p> <ul style="list-style-type: none"> On the other hand, there are image maps that do not indicate to the user which specific web page will be retrieved when a particular region of the image is selected. These are called server-side image maps, because the computer or server hosting the web page determines which page is sent based on portion of the image selected. These are not accessible image maps, requiring a redundant text link on the same page retrieving the same pages as those links used in the image map.
8.	If information is displayed using a table(s), can columns and rows be identified by screen readers?	Using a screen reader, listen to how the table is read aloud.
9.	If frames are used, are they accurately text labeled?	Frames are used to visually separate information on a web page.
10.	Does anything on the page blink or flicker?	Ask if the web designers can prove whether any blinking or flashing elements have a frequency greater than 2 Hz and lower than 55 Hz. This requirement is necessary because some individuals with photosensitive epilepsy can have a seizure triggered by displays that flicker or flash, particularly if the flash has a high intensity and is within certain frequency ranges.
11.	Do web sites not conforming to acceptable and approved accessibility standards offer a text only equivalent of their web site?	<p>4 The World Wide Web Consortium’s (W3C) Web Accessibility Initiative Guidelines and Section 508 are the two widely accepted authorities on Web accessibility and design.</p> <p>5 Web sites that cannot adhere to the accessibility guidelines set forth by W3C and Section 508 can offer a text only equivalent for all the information displayed and all functions available.</p>
12.	If scripting is used, such as JAVA, etc., is there a text equivalent so assistive technology, like screen readers, can	An example of scripting could be a stock ticker on a web page that is animated, refreshing, and displaying information. Another example is using an image, that when a mouse cursor rolls over the image, additional information pops open on the screen, and then disappears when the mouse cursor rolls off.



	read the information?	
13.	If online forms are used, can people using adaptive technology fill in and submit all the required information?	<p>4 Can a keyboard be used to access all the form fields?</p> <p>5 Are text labels used either inside or near form fields to identify what information users should be entering?</p> <p>6 Can a screen reader identify the form(s)?</p> <p>7 Do the forms follow a logical order? For example, if a user hears “Last Name” is the corresponding form the area where they would enter their last name?</p>
14.	Is there a way for users, especially those using screen readers to skip repetitive navigational links?	Navigational links are a set of routine navigation links frequently used to move users to pages within a web site, usually located on the top or side of each web page. For example, “Help,” “Contact Us,” etc. links that all appear on the same page within a web site in exactly the same way and location.
15.	If users are given a certain amount of time for an action or response, is there any indication how much time they have left or an option to request more time?	Some web pages may expire or time out after a certain amount of time, and refresh the entire page, for example those requesting personal information.
16.	Unicode character set for Bangla	Use of Unicode character set for Bangla - Interspersing Bangla and English in the same page should be avoided until such time that there is a screen reader which can handle multiple languages.
17.	Accessible documents on web pages	Where it is not possible to make a document accessible, then an alternative, accessible format should be downloadable along with the original image file.
18.	Navigation mark-up	Use of heading level 1-6, in addition to navigation links like 'skip to main content'.
19.	HTML validation	HTML is the simplest programming language used for website development and is accessible on all browsers — desktop browser or a mobile browser. All web pages should have HTML validation.
20.	CSS validation	Content presented with CSS errors may lead to serious problems such as overlapping of content, making it almost impossible to read. CSS errors may also prevent some users from successfully carrying out custom CSS processing to set the preference of color and size of text and object to suit their vision requirement.
21.	Color adjustment option	High contrast and font customization options should be available

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22.	Labeling of Links	<p>Labeling links correctly rather than just 'click here'- i.e., descriptions should be accurate.</p> <ol style="list-style-type: none"> 1. The web page has a descriptive and informative page title. 2. A sign language video is provided for all media content that contains audio. 3. The page is readable and functional when the text size is doubled. 4. All page functionality is available using the keyboard
23.	Accessibility plugin	Some accessibility features such as Monochrome, Invert Colors, Big Cursor, Highlight Link, Show Headings, Reading Guide, Reset Button, Keyboard Shortcut etc. Commonly these items are named Accessibility Plugin.
24.	Accessibility Guideline	Have to follow the WCAG 2.1 Guideline.

4.5 Security Certification

- 4.5.1 Firm will undertake the responsibility for to get the "**Audit Assessment and Reporting**" certification from Bangladesh Government's Computer Incident Response Team (BGD e-GOV CIRT).
- 4.5.2 Firm will undertake the responsibility for to get the "**Vulnerability Assessment and Penetration Test**" certification from Bangladesh Government's Computer Incident Response Team (BGD e-GOV CIRT).

4.6 Quality assurance

- 4.6.1 The firm undertake the developed system quality assurance certification from Software Quality Testing and Certification (STQC)

5 Source code handover:

Full source code including all developed libraries must be handed over to the A2i authority or A2i nominated organization. This should have included (Source Code, Database, files, and all the resources) with the deployment guideline. This can be done every quarter.

6 Territory

The software and technology assets developed under this contract will be exclusive to the Judiciary of Bangladesh and firms cannot use or re-use the same for other purposes within this country for other agencies or out of Bangladesh for any other purpose.

7 Location of Work:

Dhaka, Bangladesh

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8 Exit Process

During the contracted period, there will be a technical team at the procurement entity side who will be engaged to gather knowledge on both the technology and operation of the platform. Once the contract expires and the platform is delivered, that team will undertake the platform. A2i will work on that to take over the responsibility.

9 Duration of the Assignment

Total Duration of the assignment is 12 Months.

10 Deliverables

• Deliverables and schedule

The following outputs will have to be delivered within a maximum period of 12 months after signing the contract requiring the following deliverables:

SL	Deliverables	M 1	M 2	M 3	M 4	M 5	M 6	M 7	M 8	M 9	M1 0	M1 1	M1 2
D1	Inception Report with a detailed plan												
D2	Submission of Software Requirement Specification (SRS)												
D3	Development of The Court Order Record and Certified Copy												
D4	Integration with Other Platforms/Systems												
D5	Deployment of The Court Order Record and Certified Copy												
D6	Enhancement of the Deployed System & Development of mobile application.												

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D7	Infrastructure Administration										
D8	<ul style="list-style-type: none"> • Testing (Load, Stress, QA, UAT) • QA & Security Testing report • Audit Assessment and Reporting certification Vulnerability Assessment and Penetration Test certification Software Quality Testing and Certification 										
D9	Maintenance, Support and Change Management										
D10	Post-Hosting Support										
D11	Capacity Management and Technology Transfer										
D12	Workshop and Training										

Joint Venture

Multiple Companies having technical and legal competency for providing such services can apply jointly but they must have legal agreement among them where one company needs to be lead. The joint venture company jointly needs to fulfil all conditions mentioned in this ToR. Joint-venture agreement needs to have clear identification about each responsibility matrix along with IPR.

11. Minimum eligibility of Team Composition

Sl No.	Role	Qty	Responsibilities	Required Expertise
1	Team Leader	1	<p>The Project Manager is responsible for the day-to-day operational management of the project, including developing and overseeing work and preparation of project progress reports. S/he is responsible for regular reporting to the client. The chosen candidate is responsible for overseeing all technical aspects of the project implementation including analyze the user requirements, develop software design, choose the right technical solution as well as oversee the right implementation to ensure sustainability. Coordinating the training and workshop.</p>	<ul style="list-style-type: none"> i) Minimum graduate in Computer Science and Engineering/ICT preferably having a degree from a reputed university. ii) Minimum 10 years of progressive experience with at least 5years' experience in managing large scale IT projects. iii) Past Experience in leading such an assignment, role including software design and development
2	System Analyst	1	<p>The System Analyst is expected to gather requirements from business units or users analyze and documented technical and business requirements.</p>	<ul style="list-style-type: none"> i) Minimum graduate in Computer Science and Engineering/ICT or relevant subjects. ii) Minimum 7 years of progressive experience in the sector of software development especially analyzing the complex user story and prepare business flow.
3	QA Manager	1	<p>QA manager should implement QA processes within the team and improve the process by defining activities, setting priorities and balancing at a team level. (S)he will ensure that all team will work together and consistently produce the</p>	<ul style="list-style-type: none"> i) Minimum graduate in Computer Science and Engineering/ICT preferably having a degree from a reputed university. ii) Minimum 7 years of progressive experience in maintaining Development team for a large-scale application.

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			highest-quality software applications.	
4	Development Team Lead Web	1	The Development Team Lead will consult with Development Manager to ensure necessary IT solutions. (S)he will conduct with team members to assign task and help in technical aspects where required	i) Minimum graduate in Computer Science and Engineering/ICT preferably having a degree from a reputed university. ii) Minimum 7 years of progressive experience in maintaining Development team for a large-scale application.
5	Software Engineer Front End (Web)	2	The Software Engineer will develop code accordingly to ensure the product's usability and stability based on requirements. Assist team members in critical areas of front-end programming.	i) Minimum graduate in Computer Science and Engineering/ICT or relevant subjects preferably having a degree from a reputed university. ii) Minimum 5 years of progressive experience in designing and developing enterprise grade web application
6	Software Engineer Back End (Web)	2	The Software Engineer will develop code accordingly to ensure the product's usability and stability based on requirements. Assist team members in critical areas of back-end programming.	i) Minimum graduate in Computer Science and Engineering/ICT or relevant subjects preferably having a degree from a reputed university. ii) Minimum 5 years of progressive experience in designing and developing enterprise grade web application
7	UI/UX Expert	1	This role is about designing the interface to ensure it delights the user.	i) Minimum graduate in any subject. ii) Minimum 5 years of experience in designing UI for enterprise grade application.
8	DevOps engineer	1	DevOps engineers oversee teams of junior software	i) Minimum graduate in Computer Science and

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			developers. Their duties include advising on the alignment of operations with information systems, writing code and scripts, and ensuring the seamless deployment of software. They are also required to test software and resolve information system errors.	Engineering/ICT or relevant subjects preferably having a degree from a reputed university. ii) Minimum 3 years of progressive experience in designing and developing enterprise grade web application
9	System Integrator/Integration Expert	1	The System Integrator/Integration Expert will consult with the stockholders and make a plan to complete the required integration the system with the other systems	i) Minimum graduate in Computer Science and Engineering/ICT preferably having a degree from a reputed university. ii) Minimum 3 years of progressive experience in multiple system integration.
10	App Developer iOS	1	iOS developers design and build applications for mobile devices running Apple's iOS operating software. They are responsible for designing and coding the base application, ensuring the quality, reusability and sustainability of the application, fixing application bugs, maintaining the code, and implementing application updates.	i) Minimum graduate in Computer Science and Engineering/ICT or relevant subjects preferably having a degree from a reputed university. ii) Minimum 3 years of progressive experience in designing and developing enterprise grade web application
11	App Developer Android	1	Design and build advanced applications for the Android platform. They are responsible for designing and coding the base application, ensuring the quality, reusability and sustainability of the application, fixing application bugs, maintaining the code, and implementing application updates.	i) Minimum graduate in Computer Science and Engineering/ICT or relevant subjects preferably having a degree from a reputed university. ii) Minimum 3 years of progressive experience in designing and developing enterprise grade web application
12	Technical Writer	1	Record Technical description of features, API, 3rd party integration Prepare user manual by describing the current flow of application	i) Minimum graduate in any subject ii) Minimum 3 years experiences on providing on writing technical document

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			Create release notes with proper explanation for user and to assist the project manager to complete the workshop and training.	
13	Layer - 2 Support Engineer - Offsite	2	<p>Identifying and Evaluating technology Solutions is their core responsibility but they also have to work with the support team on a daily basis to contribute to the organization's overall IT needs and strategy as well as.</p> <p>Application Support Engineer is the foresight to anticipate and address potential issues before they become issues. This takes good organizational skills and keen attention to detail.</p>	i) Minimum graduate in any subject ii) Minimum 2 years experiences on providing software support services
14	Layer - 1&2 Bridge Support Engineer - Onsite/Offsite	1	The support Engineer is the first line of defense in finding the root cause of an application malfunction. Their duty in this scenario is to escalate the issue to their Senior Engineer. S(he) will also ensure new users of an application have a smooth onboarding process	i) Minimum graduate in any subject ii) Minimum 2 years experiences on providing software support services
15	Quality Assurance Expert	1	The Quality Assurance Expert will be monitoring, inspecting and proposing measures to correct or improve an organization's final products in order to meet established quality standards.	i) Minimum graduate in Computer Science and Engineering/ICT preferably having a degree from a reputed university. ii) Minimum 7 years of progressive experience in maintaining Quality Assurance Team for a large-scale application.
16	Quality Assurance Engineer	2	Test Engineer is expected to designing and developing automated and manual test procedures on the basis of requirements	i) Minimum graduate in any subjects ii) Minimum 2 years experiences in building/configuring automated tools which will do crucial testing to make a bug free application




17	Security Expert	1	To ensure proper security within Application	i) Minimum graduate in Computer Science and Engineering/ICT preferably having a degree from a reputed university. ii) Minimum 5 years of experience in testing systems and identifying security hole.
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12. Payment Schedule

Sl-	Deliverables	Milestone	Percentage of Payment
1	After Submission of Inception Report	1 month after signing the contract	10%
2	After five months of successful completion of <ul style="list-style-type: none"> • D2- Submission of Software Requirement Specification (SRS), • D3- Development of The Court Order Record and Certified Copy • D7- Infrastructure Administration • D12- Workshop and Training • Updated source code & resources handover 	5 months after signing the contract	25%
3	After eight months of successful completion of <ul style="list-style-type: none"> • D4- Integration with Other Platforms/Systems • D5- Deployment of The Court Order Record and Certified Copy • D12- Workshop and Training • D6- Enhancement of the Deployed System • Updated source code & resources handover 	8 months after signing the contract	30%
4	After ten months of providing services of <ul style="list-style-type: none"> • D8- Testing (Load, Stress, QA) and QA & Security assessment certification • QA & Security Testing report • Audit Assessment and Reporting certification • Vulnerability Assessment and Penetration Test certification • Software Quality Testing and Certification 	10 months after signing the contract	25%




5	<p>After twelve months of providing services of</p> <ul style="list-style-type: none"> ● D11- Capacity Management and Technology Transfer ● D12- Workshop and Training ● After the transfer of technical knowledge and the handed over of complete source code and all other resources. 	12 months after signing the contract	10%
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13. Eligibility Criteria

- Minimum 5 years' experience in ICT business as a registered company/entity in Bangladesh.
- Must have valid and up to date Trase license/ Register of joint stock & companies (RISC) registration (if applicable), TIN certificate, VAT identification Number, Updated Income Tax Payment Certificate.
- Must have experience of developing web-based enterprise solution for Government of Bangladesh or any of its agencies.(Submit Work Completion Certificate)
- Firm needs to have at least one existing running software solution in either Bangladesh Government or in any other Corporate Sector related to Public Service Delivery with Document/ Data / Workflow Management. (Submit proper document/URL)
- The minimum average annual turnover is BDT 1.20 crore in the last 2 years. (Please submit the necessary document in this regard. For example, audited financial documents)
- Must have a minimum amount of liquid asset BDT 75 lac in the last 02 (Two) years in the form of credit line or working capital. (Please submit the necessary document in this regard. For example, audited financial documents)