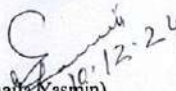Government of the People's Republic of Bangladesh
Ministry of Commerce
Bangladesh Regional Connectivity Project-1
Level-12 (West side), Probashi Kollayan Bhaban,
71-72 Eskaton Garden Road, Dhaka-1000

Memo No: 26.00.0000.066.07.056.24-573   Date: December 10, 2024

REQUEST FOR EXPRESSIONS OF INTEREST FOR SELECTION OF
INFORMATION TECHNOLOGY (I.T.) FIRM (National)

1. The Ministry of Commerce is implementing the Technical Assistance Part of IDA financed Bangladesh Regional Connectivity Project-1.
2. The Procuring Entity intends to apply a part of the IDA Credit for procuring I.T. firm for the following services: Package No. SD-46: Bangladesh Trade Portal (BTP) Development and Up gradation. The required qualifications and experiences of the I.T. firm are as follows: reviewing expressions of interest (EOI) submitted for the assignment:
2.1 The consulting firm/Joint venture firms should have legal entity (registration from respective government authority, VAT, TAX license etc.) for working in Bangladesh;
2.2 The consulting firm/Joint venture firms must have 10 years of experience in design, development and implementation of various software. (Experience will be count from date of the first project development). In case of joint venture, leading firms must have minimum seven years of experience and the partner firm must have five years of experience in the software development area.
2.3 Must have experience (completed) in design, development and implementation of 10 (ten) software projects in the field of web-based application software/e-government application
2.4 Must have experience of completing similar nature of service at least 03 large scale / nationwide software development implementation and maintenance service amounting BDT 3 Core in single work order each with the Gov/Semi Gov/Autonomous of Bangladesh
2.5 Must have experience in minimum 5 (five) projects (completed) having data collection, data analysis and processing related works in Government sector.
2.6 Among the projects, at least 1 (one) project (completed) must be in digitalization/automation of a government service/function, where all the design, development, implementation and maintenance support (covers SDLC full cycle) services were provided;
2.7 At least three database software developed in last 5 years;
2.8 Proven experience in designing, developing and maintaining of web-based database and its long-term functionality;
2.9 Experience in developing digital web-based trade and business-related solutions for the government sector will be given preference.
2.10 Proven experience in developing web database for a large number of project beneficiaries;
2.11 Should have capability of installation and maintenance of server system;
2,12 Proven success in all stages of web development from conception to execution;
2.13 Should have experience of developing at least 3(three) mobile applications for both Android and IOS, among those at least 2(Two) Apps will be expected for government organizations.
2.14 Must have minimum 50 (Fifty) ICT personnel in company payroll related to system analysis, design, development, integration, testing, QC, training and implementation of web, database and mobile based applications/ software solutions. (Need to submit CV) with the photo copy of ID card.
2.15 Must have a 24/7 support system/ team to support to provide support.
2.16 Must be a member of BASIS;
2.17 Must have CMMI level 3 and ISO 27001 certificate
3. The Scope of Services / Terms of Reference (TOR) of the Consulting Firm for the package is available in the office of the undersigned and also at www.mincom.gov.bd and http://brcp-1.gov.bd/ .
4. The interested I.T. firm must submit the following documents with its Expression of Interest:
4.1 Updated Trade License valid up to June 30, 2025, 4.2 TIN Certificate & Update Income Tax Clearance Certificate/ Evidence, 4.3 VAT Registration Certificate, 4.4 Firm Registration certificate, if any ,4.5 Bank Solvency Certificate, 4.6 Audited Accounts for last 03 Years, Average company Turnover must be at least 5 crores in the last consecutive 03 years. 4.7 Company's Brochure/Profile bearing organizational structure. 4.8 A written undertaking that the Firm/Institute has not been blacklisted or debarred by any Government Organization & IDA and 4.9 All supporting documents to prove that they have required qualifications and experiences.
5. The Project Implementation Unit of BRCP-1, MoC on behalf of the Ministry of Commerce invites eligible I.T. firm to indicate their interest in providing the services. Interested I.T. firms must provide information indicating that they are qualified to perform the services. The attention of interested I.T. firms is drawn to paragraphs 3.14 to 3.18 of The World Bank Procurement Regulations for IPF Borrowers, Procurement in Investment Project Financing, Goods, Works, Non-Consulting and Consulting Services, July 2016 ("Procurement Regulations"), setting forth the World Bank Group's policy on conflict of interest. An I.T. firm will be selected in accordance with the Quality and Cost Based Selection (QCBS) method set out in the Procurement Regulations. Further information can be obtained at the address given below during office hours between 09:00 a.m. to 5:00 p.m. Expressions of Interest (EOI) must be delivered in written form - one original & one copy in sealed envelope to the address given below in person or by mail by **2:00 p.m. on December 31, 2024.**
6. The Procuring Entity reserves the right to accept or reject any or all EOIs without assigning any reason, whatsoever.

(Shaila Yasmin)
Joint Secretary, Ministry of Commerce
and Project Director (Additional Charge),
Bangladesh Regional Connectivity Project-1[Part-2]
Phone: +8802- 55138022
E-mail: pdbrcp1moc@gmail.com

1.1 Introduction

The Government of the People's Republic of Bangladesh has received an SDR 150 million Credit from the International Development Association (IDA) – a member of the World Bank Group – for financing the cost of the Bangladesh Regional Connectivity Project 1(BRCP-1), being jointly implemented by the Bangladesh Land Port Authority (BLPA), National Board of Revenue (NBR) and Ministry of Commerce. The second component of this umbrella project is being implemented by the Ministry of commerce as a separate technical assistance project. The overall objective of this technical assistance project is to strengthen trade related institutional capacity in order to ensure active and sustainable cooperation between multiple trade-related stakeholders and economic empowerment of women traders.

This technical assistance project consists of following three (3) components:
- Component A: Develop (pilot) programs to support female traders and entrepreneurs. This component will pilot activities to help address barriers to women becoming more integrated into regional and global supply chains and trading opportunities.
- Component B: Capacity Development Support for the National Trade Facilitation Committee. The inter-ministerial National Trade and Transport Facilitation Committee (NTFC) has been set up during the preparation of the proposed Project to coordinate all trade and transport-related policies and activities in Bangladesh, and will also serve as the Advisory Committee for the Project.
- Component C: Improvements to Bangladesh Trade Portal and to set up a National Enquiry Point for Trade. The Bangladesh Trade Portal (BTP) was launched in March 2016. This component will support further up gradation of the BTP to expand its functionality to include information of relevance to potential Bangladesh exporters and to ensure that content is kept up to date. This component will also set up the National Enquiry Point for Trade, which will help Bangladesh to meet a key requirement of WTO Trade Facilitation Agreement.

This technical assistance project intends to apply part of the IDA Credit for procuring services from qualified private firms or institutions to upgrade/ revamp (technological and content) the Bangladesh Trade Portal to meet the demands of the future needs. The upgradation of the Bangladesh will focus on introducing latest technologies to make it more effective, efficient and user friendly.

1.2 Background of the Bangladesh Trade Portal

The Bangladesh Trade Portal (BTP) is an official source of all regulatory information relevant to traders who wish to import goods into Bangladesh or export to other countries. The Ministry of Commerce of the Bangladesh Government has established the Portal in order to improve the predictability and transparency of the country's trading laws and processes.

The Portal is also a one-stop point for information relating to export from and import into Bangladesh. Click on the relevant links on this page to look for the Tariffs relating to each commodity, any special

measures, the procedures for applying for permits, licenses and Customs clearance, and much more. The Guide to Trade, on the top menu of this page, provides a comprehensive set of instructions and guidelines in plain language and conveniently organized by topic. The Trade Portal is in line with the government's commitment to facilitating information sharing, focuses on accelerating economic growth, as well as compliance with Article 1 of the Trade Facilitation Agreement with the World Trade Organization.

The 1st version of the Bangladesh Trade Portal was inaugurated back in 2016 and the second 2nd version was made live in 2018. Since then, the 2nd version has been serving stakeholders from across the world. Now the initiative has been taken to design and develop the 3rd version of the Bangladesh Trade Portal to make it more efficient, effective, and user-friendly.

Bangladesh Trade Portal (BTP) is developed using PHP Yii framework 1.0 and MySql Database. Some of the limitations of the existing portal include, mobile responsiveness and dynamic content management system (CMS). That's why under this technical assistance project intends to apply part of the IDA Credit for procuring services from qualified private firms or institutions to Technology Upgradation and re-design Bangladesh Trade Portal (BTP) Website (https://www.bangladeshtradeportal.gov.bd). This will make Bangladesh Trade Portal more user friendly and adopt new technology as well as keeping align with the modern/next generation trade portal comparing other countries.

2. Objective of the Assignment:

The objective of designing and developing the 3rd version of the Bangladesh Trade Portal is to create a user-friendly platform that simplifies trade procedures, provides easy access to trade-related information, automates processes, integrates stakeholders, ensures compliance, enables real-time data exchange, and enhances data analytics and security. The goal is to facilitate smoother exchange of information, promote international trade, and increase the competitiveness of businesses in the global market. Some notable major objectives include:

2.1 Better User Experience: Necessary changes and upgradation to be made in the user interface and overall user experience to make it more intuitive, user-friendly, and accessible for all stakeholders involved in trade activities, including importers, exporters, government agencies, and other relevant parties.

2.2 Improved Information Accessibility: The purpose is to ensure that the Bangladesh Trade Portal provides up-to-date and comprehensive information on trade policies, regulations, procedures, and requirements. It also envisages to make it easier for users to search for relevant information and access relevant documents, forms, and guidelines.

2.3 Market Access Information: Bangladesh Trade Portal aims to provide valuable market access information for domestic and international traders. This includes offering market research reports, trade agreements and tariffs, non-tariff measures, market access barriers, export documentation guidance, market entry support, and sector-specific information. The goal is to equip businesses with the necessary knowledge to explore new markets, understand trade regulations, overcome barriers, and expand their export opportunities.

2.4 Simplified Trade Procedures: BTP plans to provide information on Simplified Trade Procedures by analyzing various trade processes and requirements into a single platform which will be beneficial for the importers and exporters to comply with those regulations. This may also include export preparedness assessment toolkit for the entrepreneurs. Visual (can be business process and/ or interactive) flow charts for users to guide them through different business/ license/ permit processes.

2.5 Integration with Stakeholders: Enable seamless integration with relevant government agencies, customs authorities, and other trade-related institutions to exchange information, share data, and streamline communication. This integration would help minimize redundancies and delays in the trade process. MoC have already signed a MoU with 36 government agencies for sharing various kinds of data.

2.6 Chatbots and Virtual Assistants: Building a chatbot with large language model introduce AI-powered chatbots or virtual assistants to provide instant support and answer user queries with proper training. These intelligent assistants can offer assistance in real-time, guide users through trade procedures, and provide relevant information, enhancing user experience and responsiveness. Besides, this Chatbot can learn patterns of questions and provide the best possible information to the users (enriching the FAQ section too).

2.7 Foster External Communication: The purpose is to introduce interactive communication channels, providing timely announcements and updates, offering FAQs and knowledge resources, collecting user feedback, conducting user training and workshops (if required), ensuring transparency through status updates, and maintaining a social media presence. The goal is to enhance engagement, provide support, and foster quick, time and cost efficient, and transparent communication with users and visitors of the trade portal.

2.8 Real-time Data exchange and monitoring: Provide real-time tracking and monitoring (API integration- if required) capabilities for trade related information, allowing users to get the latest information on this platform. This feature would improve transparency and enable users to take necessary actions promptly.

2.9 Training and Support: Develop comprehensive training resources, user guides, and support mechanisms to assist administrators and users in navigating the trade portal effectively. Prepare materials to familiarize stakeholders with the new features and functionalities of the updated version.

2.10 Data Analytics and Reporting: Incorporate data analytics and reporting capabilities to generate insights and reports on trade patterns, trends, and performance indicators. This data can be used for informed decision-making, policy formulation, and identifying areas for improvement.

2.11 Security and Data Privacy: Ensure the highest level of security measures to protect sensitive trade-related information and ensure data privacy. Implement robust authentication protocols, encryption mechanisms, and regular security audits to safeguard the integrity of the trade portal.

3. Scope of the Assignment

a. **UX/UI design:** The assignment involves assessment of the existing UX/UI and designing an intuitive and user-friendly interface that simplifies navigation and enhances the overall

experience for users accessing the trade portal. It includes creating a visually appealing and responsive UI design that caters to the needs of different user groups. International trade portals may be consulted in designing the UX/UI.

b. **Review of other countries trade portals:** The consultant needs to review other existing trade portals such as India, Nepal, Sri Lanka, Kenya, Vietnam, Thailand, Philippine, Tajikistan, ASEAN and EU including WITS and Trademap database in designing the 3rd version of the BTP. The consultant needs to submit a summary of the replicable features/ good practices so that the new version of the BTP can maintain international standards. The UN Recommendation N°. 38: Trade Information Portals (ECE/TRADE/465) on developing trade information portals may be followed.

c. **Redesign and Reorganize:** Bangladesh Trade Portal shall be redesigned and reorganized with necessary functionality based on the best practices received from the above-mentioned trade portals including following business needs. Redesign should have user centric design including user person, user interface improvements, mobile responsiveness and user experience testing.

d. **Core Functionality:** The Core functionality of BTP not limit to below options
   - i. User, organizational privilege wise dashboard with including work flow
   - ii. Template design
   - iii. DB design (ER diagram, File Structure with other related documentation)
   - iv. Business Process visual diagram
   - v. Hosting details (H/W, S/W, Firewall, B/W and other details)
   - vi. Ensure Security and Privacy
   - vii. Support functionality

e. **Content and Information Architecture:** BTP content vendor should ensure accurate and easy to find content. Content should support multilingual support including Bengali and English to catchup both local and international user with proper trade literature.

f. **Language Support:** The portal will have full functionality in both Bangla and English, allowing users to switch between languages seamlessly. Content, including trade regulations, guides, manuals, and tutorials, will be available in both languages to cater to local and international users. This will also include but not limited searches in Bangla, Bangla SEO, and others.

g. **User Journey Mapping:** User journey mapping involves understanding user needs, creating personas, designing user flows, identifying touchpoints, addressing pain points, conducting iterative testing, and continuously improving the user experience. User Journey Mapping ensures a user-centric design that guides users through their trade-related tasks effectively.

h. **Searching and Filter:** Implement and efficient search engine with filter option to help user to find relevant trade related information easily. Searching methodology may be by goods, HS codes, regulatory procedures, legal documents and other criteria should be considered. After reviewing search option of other countries trade portal, other criteria based search methodology can be incorporate in the trade portal.

i. **Tariff Structure:** The user may avail to see the tariff structure HS code wise (2-digit, 4-digit, 6-digit, and 8-digit) with specific criteria (MFN Rate, Preferential Rate under GSP, DFQF, Bilateral trade, etc.) and integrate with country of origin database to issuing the certificate. OTS (Operating Tariff Schedule) should be plugged dynamically with real time integration following other stake holder.

For exports, the system will also allow users to view tariffs for Bangladesh's products being exported to various countries, ensuring compliance with international trade agreements and tariff structures (MFN Rate, Preferential Rate under GSP, DFQF, Bilateral trade, etc.). Necessary trade related information for 25 top export countries has to upload at the portal.

j. **Business Startup Process / Export Readiness Assessment / Export Import processes / Certificate, License, and Permit related process:** Clearly view and properly guide the new comer to setup the business with necessary process with legal authority. Develop export readiness assessment toolkit to encourage new exporters. Detailed and visual process guide for import and export. Provide product/ sector specific (Agro-processing, frozen items, light engineering etc.) export guideline as well. Provide visual guideline for Certificate, License, Permit related issues.

k. **Statistical data:** Should have published export import related data dynamically collected from different sources with different kind of analytical tools. Report generating functionality must be available at the portal with .xls, .txt, .csv or pdf format.

l. **Functionality to be added in the 3rd Version of the BTP:**

The consultant would need to Develop 3rd version of BTP (toolkit-3) called next. Generation of Trade Portal which might have but not limited to below functionality:

- Make smart searching System by introducing auto suggestion arrangement while searching tariff data, GridView data searching and site searching etc.
- Interactive dashboard (Home Page) for all content of BTP.
- Upload Import and export data, commodity, tariff rate which are collected from different sources such as Bangladesh Bank, EPB and NBR (ASYCUDA Data)
- Data visualization for dynamic import and export markets trend by product wise (HS Code), country wise, etc.
- Generate dynamic report for Markets info, Product info, Potential market and Overall trade trend statistics.
- Digital and regional promotional campaigns including 23 commercial councilors abroad.
- Data and Analytical Report Generation facilities.
- Social Media linkages.
- AI powered Chatbot.
- Provision for incorporating dedicated section - Agro (BTF), RMG, Women etc.
- Provision of EPB, BB, NBR, MoC data base integration.
- E-learning modules on export and import procedures.
- Product wise preferential tariff/rules origin setup and display.
- Regulatory information about Trade in services and E-commerce.
- Duty Calculator.
- Real-time exchange rate and exchange rate calculator.
- Business profile and service profile creating and showing.
- Setup and display exporting and importing product item name, images and mapping with the importing and exporting countries.
- Should have the option to upload WTO eping notification and display it in searchable format.
- Migrate all existing BTP's data to the new system.
- Any other functionality will have by comparing the others countries trade portal (ITC trade map, Indian Trade portal, Nepal Portal, EU trade portal, Kenya trade portal etc.).

- Trade Portal website will maintain the modern rules of Search Engine Optimization (SEO).
- Live visitor counting system.
- Trade Portal will have the admin panel, agency user panel, public user. Admin user will perform the all the activity; agency user will create/update their own agencies content which will be need to approval from admin user for publishing. Public user can create their profile as business profile and follow page/post for getting the alert notification.
- Option to take backup database from the frontend.
- The BTP should be hosted through National Data Center of Bangladesh Computer (CentOS Server).
- Maintain and ensure Security Concern by following the all aspects of Security Guideline.
- Test the trade portal software by the Software Quality Testing Centre of Bangladesh Computer Council. (All cost will be borne by consulting firm)
- Provision for different language.
- Free Flow and secured access.
- Provision for enhancement of feature.
- Modern User Interface.
- Linkage with global market pricing of specific products.
- Fast loading speed of the website, optimize for slow connection and avoid flash.
- Mobile Optimization – Mobile friendly website.
- Responsive Design.
- Interactive Trade Dashboard: Implement a dynamic dashboard that provides real-time updates on trade statistics, tariffs, trade agreements, and economic indicators relevant to Bangladesh's international trade.
- Customizable Alerts and Notifications (Email, inter system alert, SMS, etc.)
- Accessibility for everyone (High-contrast color schemes, Keyboard navigation, Simplified language, Clear hierarchy, Easy-to-read fonts).
- Data Visualization and Analytics with different kinds of trade parameter.
- Secure User Authentication.
- Google analytics and Facebook pixel integration.
- Website should be all modern browser comfortable.
- If the website uses APIs, ensure they are secure by using proper authentication, authorization, and validation.
- Website should be HTTPS enable to ensure data transmitted between the user's browser and the web server is encrypted.
- Option for taking website and database backup periodically.
- Quarterly mobile app (Android and IOS) update, bug fixing and publish.
- Relevant and concise content, Easy-to-Read text, Optimized images.
- Ensure smooth scrolling and intuitive interactions. Minimize form fields and use autofill options where possible. Make it easy for users to take desired actions.
- Option for bulk update of the tariff schedule in pdf, xls or csv format.
- Call to action (button, links, pop ups etc.) ---- tell visitors what you would like them to do next and they'll do it. Every page of your site should have a CTA.
- Google search control integration (Google Search Console integration refers to the process of linking your website with Google Search Console (GSC), a free tool provided by Google that helps you monitor, maintain, and troubleshoot your site's presence in Google search results.)
- System should have capability to capture data from multiple sources like: web page, desktop application, excel file, native pdf, email body and attachment, etc.

- For any error occurs during the process time, system must have options to notify end user immediately via Email/SMS.
- System should have flexible user interface where user can input the requirement of reports. System should collect data from multiple sources based on the user inputs and expectations.
- There will be a Dashboard presenting dynamic data in reports in tabular and graphic presentations.
- System should keep log for every activities and errors. At the period, supply shall enhance/improvise the design to minimize the error rate.
- The system should have functionality to exchange data with other own systems or external institute systems.
- The system shall have functionality to export/import files based on the standard template defined through web services and/or API. Full API documentation must be provided so that third party integrators can integrate their system with this system.

m. **System design and revamping/ technological improvement:** Upgradation, operationalize and maintain a user-friendly and interactive web-based software over the existing system. New features will be added in the system as demand. The system will be more flexible, interactive, and user-friendly to allow collation of inputs from various instructions, produce standard reports.

n. **Backend development:** The system will be developed by using the following technologies.

Technologies for Backend Development
Language: PHP 8.0 or higher / Node.js 18.x or higher / Python 3.10 or higher
Framework: Laravel 10 or higher version / Latest Version of Express.js / Latest Version of Django
CMS: Laravel based CMS is preferable / Custom CMS
Database: MySQL 8.0 or higher version / Latest Version of PostgreSQL
Note: The consulting firm needs to provide necessary justification for proposing the technologies to be used for backend development during the request for proposal phase.

o. **Database preparation:** Data collection into the database of the system will be prepared by the cooperation of the consultant team. The existing data of the system will be mapped and migrated to the up-gradated database by the consultant. Due to this, Data collection and Migration plan will be provided by the consultant such as DB design, ER diagram, File structure and others functionality for new BTP website.

p. **Front End Development:** The system will be developed by using the latest version of Bootstrap, DHTML, JQuery/JavaScript, and CSS/Tailwind CSS.

q. **Hosting Requirements:** The government organization namely National Data Center (NDC), under Bangladesh Computer Council (BCC) is providing an extensive and standard hosting facility for all government organization's application and software. The application to be developed by the Vendor will be hosted in NDC or organization's own data center. Therefore, at this stage, the Vendor is requested to submit a preliminary hosting plan for this e-Service application considering the issues mentioned below:
    a. Hosting requirement /environment (hardware, servers, network, security, storage, traffic, firewall, bandwidth etc.)
    b. Hosting architecture
    c. Data Growth and Scalability plan
    d. User handling/load balancing mechanism

e. Licensing issues
f. Scheduled backup & Restore Requirements
g. Disaster recovery requirements
h. Monitoring tools requirements
i. Vendor should provide a checklist for the system and hosting security plan (i.e. fraud, hacking etc.) and furnish the test report of the checklist.

r. **Content development:** Necessary content development may be required as a part updating the BTP. This will include but not limited to review of the latest policies and regulations (such as the Import policy order, export policy, customs act etc.) to ensure that information, business processes, procedures, measures, forms are all updated and duly validated by concerned government agency. The consulting firm needs to closely work with all relevant governmental agencies including the Certificate/ License/ Permit Issuing Agencies (CLPIA).

s. **Content Management System:** The system will be developed in such a way in which all types of contents can be managed (upload, edit, delete / reject) by the authorized user.

t. **BTP Interface and integration with key stakeholders:** Necessary features need to be incorporated during the development of the BTP for potential interface and integration with key stakeholders including Bangladesh Bank, Export Promotion Bureau, and National Board of Revenue etc.

u. **External and Internal Communication management:** The communication media will be email, zoom, WhatsApp, face-to-face, Letter etc. among the system related stakeholders. The communication will be the following ways:

Internal Communication

Details	Frequency	From Whom	To Whom	Medium
Deliverables/ Milestone Review	Monthly	PM, Team	PD	MOM
Status Reporting	Weekly	Team	PM	MOM/Email

External Communication

Details	Frequency	From Whom	To Whom	Medium
Client meetings to review project status	Weekly/Biweekly/ Monthly	Internal Stakeholders	Consultant Team	MOM/Email /Zoom

v. **Data Analytics:** There will have MIS, detailed reports on daily activities in the system for data analytics.

w. **Technical and User Testing:** The consultant at their own cost will take necessary steps to test the developed trade portal in their own UAT server which is accessible over the internet. After the deployment to live server Trade Portal will be tested by in the Software Quality Testing Centre of Bangladesh Computer Council. In the testing phase, test plan, test case and test result will be provided by the consultant to client and the consultant bear all the cost associated with it. The following tests are required to completed for successfully implement the system.

- Unit Testing
- Integration Testing
- System Testing
- Performance/Load Testing
- Functionality Testing
- Security Testing
- User Acceptance Testing

x. **Security Management:** The system will maintain the following items for security
   1. Active user can login/entrance into the system. Users can access only those features which are privileged. Users can authenticate only those would have access privilege.
   2. The system shall permit users who are not administrators to view only their own information, not the information of other users.
   3. No data cut, copy and paste will allow at the time of system running.
   4. Special data shall be encrypted in the database and masking to view in the interface.
   5. The system would protect from SQL injection, CSRF, XSS, DDoS, other vulnerability etc. attacks.
   6. Write log for unknown exception.

y. **Support and Maintenance:** The firm/institution will provide at least 2 year's free warranty services (all necessary system and maintenance support with necessary modifications and bug fixing) to the MoC. The firm will also have to provide two years' system and maintenance support after the warranty period. The consultant will also propose a plan for sustainability and maintenance for post maintenance period.

z. **SEO and Social media Management:** SEO (Search Engine Optimization) and Social Media Management are crucial aspects of promoting the Bangladesh Trade Portal (BTP) effectively and increasing its visibility and engagement. SEO will include but not limited to keyword research, on-page optimization, technical SEO and backlink building etc. SEO and social media engagement related activities have to be conducted by the Consulting Firm during the maintenance period. Monthly report has to be submitted to the PIU to showcase progress.

aa. **Training and Development:** The consultant needs to provide ten days long technical training to selective participants (administrators, editors and members etc.) on the development and maintenance of the 3rd version of the BTP. Necessary training manuals need to be developed in this regard.

bb. **Manuals/ Guides/ Tutorials:** The consultant needs to create user manuals, guides, and tutorials to support stakeholders effectively. These resources provide clear instructions and compliance information, promoting user adoption and smooth operation of the portal. Important manuals/ user guides are to be created both in textual and visual format.

cc. **Update of NEP and Mobile Apps:** The consultant needs to upgrade National Enquiry Point (NEP) web portal (https://enquiry.bangladeshtradeportal.gov.bd/) and BTP Mobile apps (Android and IOS) along with upgradation of BTP for smooth user experience and mobile responsiveness.

dd. **Sending weekly trade alert email:** There has to be provision of sending weekly trade alert to register users from the portal.

4. Key Deliverables:
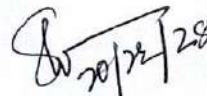
The key deliverables are not limited to below indicative tables:

Phases	Key Deliverables	Time Line
Phase 1: Initial Research, Planning & Design.	▶ Inception Report with the Software Requirement Specification (SRS) ▶ Comparison report on other countries trade portal ▶ Inception meeting on report and other countries trade portal ▶ SRS acceptance workshop ▶ Validation workshop of inception report (at least 20 participant) ▶ Any other adhoc reporting and activities required before starting development work	(1.5 months).
Phase 2: Core Development (Backend, Frontend, and App).	▶ Design & Architecture Document (High level design & Low level design) ▶ Design , Develop and deployment Bangladesh Trade Portal; ▶ Mobile-Responsive Portal: Web interface optimized for mobile use. ▶ Mobile App (React Native / Flutter): App developed for both Android and IOS with future-proof technology and features. ▶ Core Functionality: Includes API integrations, database improvements, and dynamic content updates. ▶ Security Enhancements: Strengthened to meet future needs.	(3.5 months).
Phase 3: Testing and Integration	▶ Testing environment for portal testing ▶ Unit, Integration, System, Performance/Load, Functionality, Security, User Acceptance Testing ▶ Test Report with the test case document.	(1 month).
Phase 4: Final Adjustments and Development	▶ All source code and other related deliverables will be keep in GitHub pro or Bitbucket and deliver on the other media (CD/DVD/Flash drive) as well. ▶ Create Report for the client on demand basis.	(1 month).
Phase 5: System migration, Deployment and Training	▶ System Migration, Deployment ▶ Provide 10 days training to the both Technical and 05 days operational training with training manual. ▶ User Manual for Administrator and Public User. ▶ Launching ceremony with 100 participants.	(1 month)

Any additional activities necessary to meet project requirements, ensure smooth operations, and align with the proposals set by the project management authority.

5. Intellectual Property, Code Access, and Privacy Safeguards:

Ownership: All information, code, documents, and assets related to the services mentioned above will remain the property of the Ministry of Commerce. The bidder must submit all source code, documentation, and relevant files to the Ministry of Commerce upon successful project launch. This includes any tools, utilities, or scripts created during the assignment.

Restricted Usage: Any findings, information, or tools developed or created under this assignment are solely for the purpose of this project and cannot be used for any personal or commercial purposes without explicit written consent from the Ministry of Commerce.

Version Control & Code Access: The entire codebase will be managed through a secure version control system, such as GitHub or Bitbucket. Access to the repository will be granted only to authorize personnel, ensuring secure and traceable version control. Code changes must follow a documented workflow with regular commits, pull requests, and reviews to maintain quality and security.

Security & Privacy Measures:

All data, including source code and documentation, will be securely stored and encrypted both in transit and at rest.

Audit Logs: All access to the version control repository, as well as any modifications to the codebase, will be logged for security auditing purposes.

Access Control: Role-based access control (RBAC) will be implemented, allowing only specific, authorized users to view or modify sensitive files.

Compliance with Privacy Standards: The project will comply with relevant privacy and data protection regulations (such as GDPR or CCPA) to safeguard user data and maintain data integrity.

Source Code Backups: Regular, encrypted backups of the source code and documentation will be created and securely stored to ensure data recovery in case of an emergency.

Final Handover: Upon project completion, the consulting team will provide the Ministry with all relevant assets, including source code, technical documentation, deployment scripts, and any supporting materials. This final handover package will ensure the Ministry has full control and ownership over the developed system and can continue its maintenance independently.

6. Timeframe of the Services:

The duration for the assignment single will be approximately 8 (Eight) months from the date of contract signing.

- **Total Project Duration:** 8 months.
- **Phases:**
  - **Phase 1:** Initial Research, Planning & Design (1.5 months).
  - **Phase 2:** Core Development (Backend, Frontend, and App) (3.5 months).
  - **Phase 3:** Testing and Integration (1 month).
  - **Phase 4:** Final Adjustments and Development (1 month).
  - **Phase 5:** System migration, Deployment and Training (1 month)

7. The Key Experts' Qualifications, Experiences:

The proposed services under this Terms of Reference shall be carried out by engaging a Consultant

having adequate experience and knowledge in designing and delivering similar trade related web-based solutions. The Firm/Consultant shall propose the structure and composition of its consultants' team members. It should list main discipline of the assignment and the key experts. An indicative team structure of Key Experts with qualification, experiences and individual's inputs & responsibilities as desired will be as follows:

Position	Inputs in person-months	Qualification and Experience	Major Responsibilities
Team Leader (1)	8	- Team Leader (TL) must have a minimum of 10 years of Software Development experience out of which at least 05 years' as a Team Leader. - BSc/ BSc Eng./MSc/M Eng. /MSc Eng. In Computer Science, Information & communication Technology or relevant subject. - Must have PRINCE/PMP certification. - Preference will be given having experience in working with trade related project. - Having experience of leading at least three end-to-end web based software development projects.	The Team Leader will take the overall responsibility for the execution of the assignment in accordance with the TOR and also for the coordination of all professional inputs. She/he will be responsible to the Employer and maintain close contact with Project Director (Employer's representative) to ensure that the contract is implemented in accordance with the World Bank guidelines. The Team Leader will act as the Consultant's authorized representative for both the design and implementation supervision phase and make decisions on all matters pertaining to the consulting services.
Senior Trade Expert (1)	4	- The incumbent must have relevant Master's degree from any recognized university/institute preferably in International Trade, Trade Law, Business Administration and IT Management or any other related area. - S/he must have a minimum of 10 years of general experience out of which at least 05 years' relevant experience in export/import and customs procedure, trade policy, SPS/TBT issues, market access information etc. - S/he must have experience in WTO issues, trade facilitation, logistics, infrastructure/connectivity assessment	- The Trade Expert shall provide technical & analytical input and advisory role as well related to trade in designing the Bangladesh Trade Portal which will include but not limited to assessing the quantity, quality timeliness of information available on the BTP, data and information flow, accessibility and readability of information, conformity with TFA commitments, and other internationally recognized trade portals, etc. - S/he will assist in developing survey and data collection

Position	Inputs in person-months	Qualification and Experience	Major Responsibilities
		and planning and must have knowledge and understanding of business practices of trade regulating agencies. - Experience in trade related policy and management of information portal will be added benefit.	instruments to ensure that the objective of the assignment is achieved. - S/he will assist in content development. - S/he shall assist the TL in providing adequate Regulatory issues on Trade as would be required for the assignment. - Assist the TL in implementation of all related tasks including in coordinating and reporting responsibilities.
Trade Expert Junior/ Business Analyst (1)	6	- The incumbent must have relevant Master's degree from any recognized university/institute preferably in International Trade, Trade Law, Business Administration and IT Management or any other related area. - S/he must have a minimum of 05 years of general experience out of which at least 02 years' relevant experience in export/import and customs procedure, trade policy, SPS/TBT issues, market access information etc. - S/he must have experience in WTO issues, trade facilitation, logistics, infrastructure/connectivity assessment and planning and must have knowledge and understanding of business practices of trade regulating agencies.	- S/he shall assist the TL and Trade Expert in providing adequate Regulatory issues on Trade as would be required for the assignment. - Assist TL and Trade Expert in implementation of all related tasks including in coordinating and reporting responsibilities.
UX/UI Designer (2)	5	- A bachelor's degree in a relevant field such as graphic design, computer science, web design, fine arts or a related discipline. - At least 03 years of experience in conducting user research, creating user personas, user journey mapping, wireframing, prototyping, and usability testing for tech products - Working with the government project will be an added advantage.	The incumbent will be responsible for crafting visually appealing and user-friendly designs for the BTP. S/He will assist in conducting user research, developing personas, and creating intuitive information architectures. S/he will be responsible for maintaining consistency and accessibility, along with continuous learning, supports the design process.

Position	Inputs in person-months	Qualification and Experience	Major Responsibilities
Back-end Developer/ Programmer (6)	8	- BSc/ BSc Eng./MSc/M Eng. /MSc Eng. In Computer Science or related subject with minimum 5^+ years of experience in software development work. - Having experience in designing, developing and implementing at least three (3) web-based software. - Azure Solutions Architect Expert certification/AWS Certified Solution Architect /similar kind of certificate will get preference.	The incumbent will be responsible for developing the technical background/ database and coding of the system and the Bangladesh Trade Portal.
Front End Developer (2)	6	- BSc/ BSc Eng./MSc/M Eng. /MSc Eng. In Computer Science or related subject with minimum 5^+ years of experience in software Front End development using DHTML, Bootstrap, JQuery/Javascript, CSS etc. - Having experience in designing, developing and implementing at least three (3) web-based software. - Azure Solutions Architect Expert certification/AWS Certified Solution Architect /similar kind of certificate will get preference.	The incumbent will be responsible for developing the front end of the Bangladesh Trade Portal and ensure that the website is modern and user friendly.
Database Manager (1)	8	- BSc/ BSc Eng./MSc/M Eng. /MSc Eng. In Computer Science or related subject with minimum 7^+ years of experience in Database Management work. - Having experience in installation, configuration with proper memory allocation, and expert on SQL on relational database in CentOS operating System. - Having experience in designing, developing and implementing at least three (3) Databases in Govt. Project. - Having DB certification is preferable	The incumbent will be responsible for developing the technical background/ database and coding of the system and the Bangladesh Trade Portal.
Mobile App Developer	6	- BSc/ BSc Eng./MSc/M Eng. /MSc Eng._In Computer Science or related subject with minimum 5^+ years of experience in software	Build high-quality, scalable, and maintainable mobile applications

Position	Inputs in person-months	Qualification and Experience	Major Responsibilities
(2)		development work and 5+ years of experience in mobile app development. - Proven experience as a Mobile App Developer with a portfolio of released applications using Flutter or React Native. - Knowledge of native mobile app development for Android and IOS - Familiarity with RESTful APIs to connect mobile applications to back-end services. - Frameworks & Languages: Flutter (Dart), React Native (JavaScript/TypeScript), Android Native (Java/Kotlin), iOS Native (Swift) - Tools: Android Studio, Xcode, Visual Studio Code (for Flutter and React Native development) - Version Control: Git, GitHub, Bitbucket, GitLab - API Integration: RESTful APIs, GraphQL, Firebase, Google Maps API, Payment Gateways - Any other tools that may require for develop the App for Android and IOS	using Flutter and React Native for both iOS and Android platforms. Work on native app development for Android using Java/Kotlin and for iOS using Swift, implementing custom features and optimizing performance for platform-specific functionalities. Collaborate closely with UI/UX designers to ensure mobile applications have a clean and user-friendly interface while working with backend developers to integrate REST APIs and third-party services. Develop and maintain reusable, efficient, and testable code following industry best practices for both cross-platform and native mobile development. Continuously optimize app performance, focusing on memory management, speed, and efficient use of system resources for both native and cross-platform environments.
DevOps Developer (1)	4	- BSc/ BSc Eng./MSc/M Eng. /MSc Eng. In Computer Science or related subject with minimum 5+ years of experience in software development work and 5+ years of experience in mobile app development. - Proficient in Linux administration, particularly CentOS, for managing and deploying applications in development, UAT, and production environments. - Experience hosting and managing MySQL production databases	The incumbent will be responsible for automating processes, managing CI/CD pipelines, and ensuring the reliability and scalability of our applications. S/he will collaborate closely with development and operations teams to optimize workflows, implement infrastructure as code, and enhance system monitoring and security practices. Strong problem-solving skills, a solid understanding of cloud platforms, and experience with

Position	Inputs in person-months	Qualification and Experience	Major Responsibilities
			containerization technologies are essential.
Senior SEO Expert (1)	4	- BSc/ BSc Eng./MSc/M Eng. /MSc Eng. in Computer Science or related subject with minimum 5⁺ years of experience in SEO. - In-depth knowledge of Google Analytics, Google Search Console, and other SEO tools - Up-to-date with the latest trends and best practices in SEO and SEM - Having working experience in SEO at least three (3) Databases in Govt. Project.	The incumbent will be responsible for managing and executing all SEO strategies, including content strategy, link building, and keyword strategy to increase rankings on all major search networks.
Quality Assurance (QA) Engineer (1)	4	- BSc/ BSc Eng./MSc/M Eng. /MSc Eng. in Computer Science or related subject with minimum 5⁺ years of working experience in Quality Assurance. - Having working experience in designing test plan, test cases, and implement test accordingly and provide test result. - Having to know basic SQL, Configuration the software. - Having working experience as QA at least three (3) Software in Govt. Project.	Lead the quality assurance activities. Run different tests and generate reports. Ensure fixing of different bugs.
Research Associates (Content) (03)	8	- Bachelor's or Master's degree in fields such as Economics, International Trade, Business Administration, Public Policy or a related discipline. - General Experience of at least 05 years and at least 03 years in research, including data collection, analysis, and benchmarking in trade, commerce, or economic research - Familiarity with trade processes, international trade policies, and regulatory compliance is a must - Excellent written and verbal communication skills for preparing clear, concise manuals, guides, and other documentation	Conduct comprehensive research to benchmark similar trade portals globally. Identify best practices in content presentation and user experience. Gather up-to-date trade information relevant to the portal's users. Draft content by verifying data accuracy and relevance. Ensure content alignment with the latest regulations and trade procedures.

Position	Inputs in person-months	Qualification and Experience	Major Responsibilities
			Assist in structuring and organizing manuals, guides, and tutorials.

In addition to above team of Key Experts, the Consultant may propose/add Non-Key Experts/Staffs including Enumerators, translators, data entry operators in its proposal as would be required for the assignment with appropriately inputs distribution. However, proposed Non-Key Experts/Staffs will be reviewed but not evaluated.

7. Consulting Firms qualification and experiences Required:

The interested Consulting Firm/Institute shall provide demonstrated evidences/documents as follows for reviewing expressions of interest (EOI) submitted for the assignment:

- The consulting firm/Joint venture firms should have legal entity (registration from respective government authority, VAT, TAX license etc.) for working in Bangladesh;
- The consulting firm/Joint venture firms must have 10 years of experience in design, development and implementation of various software. (Experience will be count from date of the first project development). In case of joint venture, leading firms must have minimum seven years of experience and the partner firm must have five years of experience in the software development area.
- Must have experience (completed) in design, development and implementation of 10 (ten) software projects in the field of web-based application software/e-government application
- Must have experience of completing similar nature of service at least 03 large scale / nationwide software development implementation and maintenance service amounting BDT 3 Core in single work order each with the Gov/Semi Gov/Autonomous of Bangladesh
- Must have experience in minimum 5 (five) projects (completed) having data collection, data analysis and processing related works in Government sector.
- Among the projects, at least 1 (one) project (completed) must be in digitalization/automation of a government service/function, where all the design, development, implementation and maintenance support (covers SDLC full cycle) services were provided;
- At least three database software developed in last 5 years;
- Proven experience in designing, developing and maintaining of web-based database and its long-term functionality;
- Experience in developing digital web-based trade and business-related solutions for the government sector will be given preference.
- Proven experience in developing web database for a large number of project beneficiaries;
- Should have capability of installation and maintenance of server system;
- Proven success in all stages of web development from conception to execution;
- Should have experience of developing at least 3(three) mobile applications for both Android and IOS, among those at least 2(Two) Apps will be expected for government organizations.
- Must have minimum 50 (Fifty) ICT personnel in company payroll related to system analysis, design, development, integration, testing, QC, training and implementation of web, database and mobile based applications/ software solutions. (Need to submit CV) with the photo copy of ID card.
- Must have a 24/7 support system/ team to support to provide support.

- Must be a member of BASIS;
- Must have CMMI level 3 and ISO 27001 certificate
- Required Documents: The company must submit the following documents:
    a) Company Registration, Income Tax and VAT Registration Certificate;
    b) Audited Financial statement (last 03 Years); Average company Turnover must be at least 5 crores in the last consecutive 03 years.
    c) Company's Brochure/Profile bearing organizational structure.
    d) Necessary supporting documents as a proof of satisfactory completion of work need to submitted.
- A written undertaking that the Firm/Institute has not been blacklisted or debarred by any Government Organization and IDA as well;

8. Selection Method:

The selection method for this package will be based on Qualification and Cost-based Selection (QCBS) described in the World Bank's "Procurement Regulations" for IPF Borrowers (July 2016, updated in November 2020). Under this system the best qualified firm having relevant experience will be invited to submit technical and financial proposals.

9. Facilities Provision

(a) The Firm/Consultant will facilitate monitoring of studies by the Employer and World Bank's officials.

(b) The project will provide to the Consultant all key program documents, available related data and reports such as:

- Relevant extract of Technical Assistance Project proposal (TAPP), if required;
- Sharing relevant up to date project information for a better understanding of the project;
- Providing timely feedback to the consulting firm on inception report, questionnaire, sampling, training module, draft reports etc.;

Any logistic support such as transportation as well as office space will not be provided by the Client.

(Shaila Yasmin)
Project Director (Joint Secretary)
(Additional Charge)
Bangladesh Regional Connectivity Project-I
Ministry of Commerce