



# PROBASHI KALLYAN BANK

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## INVITATION FOR EXPRESIONS OF INTEREST (EOI)

Probashi Kallyan Bank (PKB) invites EOI under the provisions of the Public Procurement Regulation-2008 (with latest amendments) for the Selection of Software Developing/Software Solution Providing Firm for Supply, Installation, Customization, Parameterization, Implementation, Support & Services and Maintenance of Online Real Time Core Banking Solution (CBS) with Capacity building of Bank's Designated Personnel under the terms and conditions outlined below and detailed in the Terms of Reference(TOR):

GOVERNMENT OF PEOPLE'S REPUBLIC OF BANGLADESH		
01.	Ministry/Division	Ministry of Finance/Financial Institution Division
02.	Agency	Probashi Kallyan Bank
03.	Procuring Entity Name	Probashi Kallyan Bank
04.	Title of Service	Selection of Software Developing/Software Solution Providing Firm for Supply, Installation, Customization, Parameterization, Implementation, Support & Services and Maintenance of Online Real Time Core Banking Solution (CBS) with Capacity building of Bank's Designated Personnel.
05.	Procuring Entity District	Dhaka
06.	Expression of Interest for Selection of	Software Developing/Software Solution Providing Firm
07.	EOI Ref. No.	PKB/HO/ITD-QCBS-01/2020-21/046
08.	Date (dd/mm/yyyy)	19/07/2020
<b>KEY INFORMATION</b>		
09.	Procurement Sub-Method	Quality and Cost Based Selection (QCBS)
<b>FUNDING INFORMATION</b>		
10.	Budget and Source of Funds	Probashi Kallyan Bank's Own Source of Funds
<b>PARTICULAR INFORMATION</b>		
11.	Project Program Code	Not Applicable
12.	Project Program Name	Automation of Bank
13.	EOI Closing Date and Time	Date: 18/08/2020 Time: 4.00 pm.
<b>INFORMATION FOR APPLICANT</b>		
14.	Brief description of Assignment	<p>Online Real Time Core Banking Solution (CBS) should have following modules: (a) General Banking, (b) Deposits, (c) Loans and Advance, (d) Bills and Remittance(including all Utility bills), (e) General Ledger, (f) Trade Finance Service, (g) Treasury and SWIFT, (h) System Administration, (i) All necessary interface of Payment Systems of Bangladesh, (j) Integrated RTGS, BACPS and BEFTN facilities, (k) interface with Alternate Delivery Channels (ATM, Branch Booth, NPSB etc.), (l) Integrated with i-banking, MFS (Mobile Financial Service like e-Wallet, Apps etc.), Agent Banking, Mobile Banking, Mobile Application and feature for SMS Transaction alert, (m) Foreign Remittance Module, (n) Islami Banking Module, (o) AML Compliance, (p) Reporting as per PKB, (q) Reporting Facility for Regulatory Authority, (r) Head Office Module and Central GL, (s) Standard integration facilities through Open API, ISO 8583, Web Services, XML &amp; JSON format or relevant, (t) A feedback module about usability, (u) Business Intelligence Tools to analyze data .</p> <p>The Online Real Time Core Banking Solution (CBS) must be capable of handling branch users. It must also have a minimum capacity to operate 500 branches of the Bank.</p>

		<p><b>All modules and features should also be complied with “Guidelines on Core Banking Solution(CBS) Features and Controls” published by Bangladesh Bank on November, 2016</b></p> <p>For detail Terms of Reference (TOR) please visit <a href="http://www.pkb.gov.bd">www.pkb.gov.bd</a> &amp; <a href="http://www.cptu.gov.bd">www.cptu.gov.bd</a>.</p>
15.	Experience, Resource & Delivery Capacity Required	<p>(1) The Software Developing / Software Solution Providing firm Must have 03 (three) years in relevant practical experience of developing and implementation of Core Banking Solution in the Banking sector. Necessary experience documents need to be attached. Must have registered Limited company with Registrar of Joint Stock Companies (RJSC) in Bangladesh having valid Certificate of Incorporation, trade license, TIN, Income Tax &amp; VAT certificate.</p> <p>(2) The Software Developing / Software Solution Providing firm must have business continuity for the last five (05) years.</p> <p>(3) The Software Developing / Software Solution Providing firm must have at least three (03) years proven experience in providing support services of Online Real Time CBS.</p> <p>(4) The Software Developing / Software Solution Providing firm must undertake that supplied Online Real Time Core Banking Solution (CBS) is capable of handling minimum 4000 users and 2000 concurrent users across 500 branches of the Bank.</p> <p>(5) The Software Developing / Software Solution providing firm must have Online Real Time Core Banking Solution (CBS) running in live at least one Bank in Bangladesh. Up-to-date experience certificate and relevant documents must be submitted in this regard.</p> <p>(6) The Software Developing / Software Solution Providing firm should have ISO-9001:2008 certificate/ISO-27001:2005 (Information Security Management System) certificate/CMMI (Capacity Maturity Model Integration) Minimum Level 3.</p> <p>(7) The Software Developing / Software Solution Providing firm must have an experience of supplying and implementing CBS with related services for minimum BDT 4.00 (Four) Crore under a single contract in the last 10 (ten) years (years counting backward from the date of publication of EOI in the newspaper).</p> <p>(8) The Software Developing / Software Solution Providing firm must have a minimum amount of liquid asset or working capital or credit facility shall be BDT 5.00 (five) crore.</p> <p>(9) The Software Developing / Software Solution Providing firm must have a minimum required qualified and experienced Key professionals of thirty (30).</p>
16.	Other Details (if Applicable)	<p>a) The Software Developing / Software Solution Providing firm shall be selected in accordance with PPA/2006, PPR/2008 and Guideline on ICT Security for Banks published by Bangladesh Bank on 2015.</p> <p>b) Expression of Interests (EOI) in 02 (two) sets [One original + One duplicate] shall be submitted in sealed envelope, delivered to the address of the undersigned.</p>
17.	Association with foreign Firm is	Not Encouraged
<b>PROCURING ENTITY DETAILS</b>		
18.	Name of the Official Inviting EOI	Dr. Md. Majharul Haque
19.	Designation of the Official Inviting EOI	Assistant General Manager and Head of IT
20.	Address of the Official Inviting EOI	IT Department, Probashi Kallyan Bank, Head Office, Probashi Kallyan Bhaban (2 <sup>nd</sup> floor), 71-72, Old Elephant Road, Eskaton, Dhaka – 1000
21.	Contact Details of the Official Inviting EOI	Tel: +88-02-48313742 E-mail: <a href="mailto:itd@pkb.gov.bd">itd@pkb.gov.bd</a>
<b>Appropriate authority reserves the right to accept or change or reject any or all EOI's</b>		

(Dr. Md. Majharul Haque)  
Assistant General Manager and Head of IT

# Terms of Reference (TOR)

## For

**Selection of Software Developing/Software Solution Providing Firm for Supply, Installation, Customization, Parameterization, Implementation, Support & Services and Maintenance of Online Real Time Core Banking Solution (CBS) with Capacity building of Bank's Designated Personnel**



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## 1. Background

Probashi Kallyan Bank (here-in-after called as “The Bank” or “PKB”) is a state-owned specialized schedule bank in Bangladesh. The Bank was established by the Government of Bangladesh in 2010 to provide collateral free loan to workers going abroad for employment, provide loan to returnees to help them out employment within the country, facilitate sending remittance and encourage the wage-earners to invest in the country. Currently, PKB has 63 (Sixty Three) branches across the country and 1(One) booth at Hajrat Shahjalal International Airport. PKB has particular deposit products, extends loans to the migrants and returnees, buys and sells foreign currencies etc. Up to February 2019, PKB has sanctioned loan worth of BDT358 crore with a recovery rate about 86% and granted migrant loans to 35400 people. PKB not only provides loan, it also handles daily about 2000 overseas job-keepers and collects various fees from them.

The money is sanctioned to the migrants after securing employment contract, visa and passport. Maximum processing time for loan is 3 days. Usually, PKB provide loan to jobseekers intended to migrate in any country, there is no restriction on it. The maturity period of loan provided by PKB depends on the employment contract. If one migrant goes abroad for 2 years, then first 2 months are considered as grace period. The migrant has to repay the loan at interest rate of 9% within next 22 months. The amount of loan for migrant is maximum BDT 2 Lacs.

There are also rehabilitation and project loans for the returnee migrants. PKB provided rehabilitation loan to 163 people; the recovery rate is about 62%. For returnee migrants, PKB provides 70 percent of total cost of projects as loan and it also provides suggestions about the projects. The amount of loan ranges from BDT 2 lakh to BDT 10 lakh. The interest rate for project of returnee migrant is 11%. It usually grants project loan within 2 weeks of application for the loan. Present status with Business Dimension of PKB is given bellow:

<b>Table-01: Present Status with Business Dimension</b>	
Office and business dimension	At present
Branches	63
Head Office Department	Related Department
<b>Customer Based Information:</b>	
Total Number of Accounts	42000
Total Number of User	200
Total Number of Concurrent User	150
Total Number of Transactions per branch per day	Peak: 50 Off Peak: 20

## 2. Objectives

In order to ensure the value addition both in technology and performance, Probashi Kallyan Bank (PKB) management has decided to automate banking activities fully in Online Real Time Core Banking Solution (CBS) for its current customer-base as well as future. The bank decided to implement an industry standard State-of-the-art Online Real Time Core Banking Solution (CBS) for the Bank to bring uniformity and to keep pace with the technological advancement in the banking sector.

## 3. Scope

Bangladesh Bank has clear instruction to all the state owned Banks to implement Online Real Time Core

Banking Solution (CBS) in its all activities. Under the contract a National renowned Software Developing/Software Solution Providing Firm to be selected to review the existing business processes of PKB, Develop, Supply & Install and Implement Online Real Time Core Banking Solution (CBS) in all the branches of Probashi Kallyan Bank. Bank wishes to establish a state-of-the-art IT Systems by implementing Online Real Time Core Banking Solution (CBS) system which will be able to support its existing operations as well as future extended operations also.

<b>Table-02: Future requirement with Business Dimension Projection</b>	
Office and Business Dimension	In Future
Branches	500
Head Office Department	Related Department
<b>Customer Based Information:</b>	
Total Number of Accounts	Unlimited
Total Number of User (Minimum)	4000
Total Number of Concurrent User	2000
Total Number of Transactions per branch per day	Unlimited

To fulfill the requirements as projected, PKB is looking for modern business solutions that will help the Bank to be more efficient, dynamic and resilient. The Software Developing /Software Solution Providing Firm(here-in-after called as “The Firm”) must submit the details of Online Real Time Core Banking Solution (CBS) that should be capable enough to scale both horizontally and vertically in order to grow with the increase of number of customer as well as with the addition of new delivery channels. It should be highly configurable in parameter settings so that all the rules can easily be applied for different banking products and services and also possess the flexibility of modifying the screen and report content without modifying the source code having in-built security features in multiple levels. Scope of services are generally included but not limited to following requirements:

- 3.1 Business & Functional Performance Requirements of the System**
- 3.2 Systems Specifications Requirement**
- 3.3 Gap Identification report /Product fitment document and Resolution**
- 3.4 Implementation Methodology with development and Customization**
- 3.5 Training & Technology Transfer**
- 3.6 Schedule of deliveries**
- 3.7 Data, facilities and local services to be provided to the Client**
- 3.8 General Technical Requirements**
- 3.9 Warranty and Technical Support**

The brief description of above scope of work is given for better understanding of the services is given bellow:

### **3.1 Business & Functional Performance Requirements of the System**

The Firm needs to demonstrate that the Online Real Time Core Banking Solution (CBS) meets all business & functional performance requirements as set forth by PKB. These business & functional requirements are generally included but not limited to:

- a) General Banking;**
- b) Deposits;**
- c) Loans and Advance;**

- d) Bills and Remittance (including all utility bills);
- e) General Ledger;
- f) Trade Finance Service;
- g) Treasury and SWIFT;
- h) System Administration;
- i) All necessary interface of Payment Systems of Bangladesh;
- j) Integrated RTGS, BACPS and BEFTN facilities;
- k) Interface with Alternate Delivery Channels (ATM, Branch Booth, NPSB etc.);
- l) Integrated with i-banking, MFS (Mobile Financial service like e-Wallet, Apps etc.), Agent Banking, Mobile Banking, Mobile Application and feature for SMS Transaction alert;
- m) Foreign Remittance Module;
- n) Islamic Banking Module;
- o) AML Compliance;
- p) Reporting as per PKB;
- q) Reporting Facility for Regulatory Authority;
- r) Head Office Module and Central GL;
- s) Standard integration facilities through Open API, ISO 8583, Web Services, XML & JSON format or relevant;
- t) A feedback module about usability;
- u) Business Intelligence Tools to analyze data.

All modules and features should also be complied with “Guidelines on Core Banking Solution (CBS) Features and Controls” published by Bangladesh Bank on November, 2016

### **3.2 Systems Specifications Requirement**

The successful Firm will conduct a detailed systems requirements study and provide a Functional Requirements Specification Manual (“FRSM”) relating to the functionalities as required to support the various products and services offered currently by the Bank or to be offered by the Bank in the near future in terms of its business strategy. In doing so the Firm is expected to take into account the minimum requirements laid down in General & Technical Requirements. Also, it should include all the areas where the Firm is suggesting a work-around. If the work-around involves re-alignment or re-engineering of a business process, the re-aligned/ re-engineered process should be included in the FRSM.

- a. The FRSM should include the standard operating procedure proposed for the re-aligned/ re-engineered process. The Firm is expected to assist the Bank in aligning/ engineering the business requirements with the application so as to enable centralization of desired business process, eliminate redundant and duplicate processes, increase operational efficiency and improve customer service. The Firm is expected to prepare detailed documentation, presentation, workflows for the business processes affected due to implementation of Online CBS, delivery channels and other applications implemented by the Firm.
- b. The Firm must suggest suitable Business Continuity procedures applicable to its solution in case the solution is unavailable. These procedures should ensure that the customers of the Bank are not denied banking services due to the solution being unavailable to the Bank’s users.
- c. The FRSM should include capabilities to automatically detect, inform and reverse transactions that may be incomplete due to Hardware and Network failures.
- d. The Firm shall provide the FRSM to the Bank for review and comment and any comments or suggestions of Bank will be incorporated therein.
- e. The supplied CBS must be secured, reliable, modular and integrated.

- f. There will be proper Disaster Recovery Management, Business Continuity Plan (BCP), Data backup and restore management according to the ICT security guidelines of Bangladesh bank.
- g. The Firm will suggest the number and volume of the Functional and Technical Group for the bank and their responsibilities.
- h. The Bank will identify the functional heads for each process, which will be responsible for the review, comments and sign-off of the FRSM.
- i. The FRSM will deem to be completed when signed-off by the Bank and Firm.
- j. The Firm will receive the completed FRSM from the bank and carry out current assessment study for all business activities, products and services offered by the bank to gain understanding of the bank's existing business operations as defined in FRSM. The Firm will help the bank to parameterize the product and provide valuable inputs at the time of system parameterization based on the current assessment study undertaken by the Firm.
- k. All the necessary parameters related to banking and administration needs to be configurable from user interface with proper audit log.

### **3.3 Gap Identification report /Product fitment document and Resolution**

The Firm will be responsible for gap identification and resolution so as to:

- a. Functionalities as mentioned in the FRSM.
- b. The Firm will provide the Bank with the gap identification report/product fitment document along with the necessary solutions to overcome the gaps within the delivery schedule.
- c. The Firm will ensure that all gaps identified at the time of system testing will be immediately resolved.
- d. The Firm will ensure that gaps pointed out by the audit and inspection team, statutory and regulatory bodies, or any other third-party agency engaged by the Bank will be immediately resolved.
- e. The Firm shall resolve gaps by proposing a suitable work around or customizing the proposed solution by way of modifications / enhancements, as necessary, to the proposed software solution.
- f. The Firm shall provide all statutory, regulatory and ad-hoc MIS (Management Information System) reports as required by the Bank in the desired format during the initial phase of customization process.
- g. The Firm shall provide for all subsequent changes to reports as suggested by the statutory and regulatory bodies from time to time immediately to the Bank at no additional cost to the Bank.
- h. The Firm shall provide for a flexible report writer utility and train the Bank personnel in using the same.
- i. The Firm will give adequate time to the Bank for reviewing the gap report.
- j. The Firm will incorporate all the suggestions made by the Bank to the gap report.
- k. The Firm will ensure that they have the necessary infrastructure and people in place to resolve all the gaps within the time lines agreed, for implementation and roll out.

### **3.4 Implementation Methodology including the following points**

The Firm should provide implementation methodology including following:

- i. List down and describe the project's inherent risks and the steps mitigate them.
- ii. Provide the composition of the project team with requisite qualifications & experiences.
- iii. Describe the role, responsibilities, required abilities and task of each team member.
- iv. Provide the various deliverables as part of the project plan.
- v. Provide Gantt chart of Work Plan.



### 3.5 Training & Technology Transfer

- a. The Firm shall have to provide necessary training to Bank’s designated personnel on all the supplied software System Administration tools, Database Administration tools, CBS Application Administration, Parameterization, User account and Rights management, adding/introducing new products, Backup and Restore procedure and security monitoring etc.
- b. The Firm shall have to provide necessary classroom and on job training on all the daily operation, safety practices, security etc. This training may be different for different head office department and other offices depending on the module they will be authorized to use.
- c. The Firm shall have to provide project management training.
- d. The Firm shall have to provide Training of the Trainer (TOT) training.
- e. The Firm shall have to provide Technology Transfer and IT site visit in abroad to top executives, IT officials and end users.
- f. The recommended training should consider theoretical including questionnaire /assignment on class and practical for each participant. This training module should also cover on Security as well as hands on training to expertise on the offered resources as described on training course outline at any reputed certified training institute. Their recommendation based on this training enhances the future improvement of the Systems smooth operation.
- g. The Firm shall make all appropriate logistical arrangements for any kinds of training.
- h. The Firm should have to provide a schedule regarding Technology Transfer to PKB.
- i. After 1 year smooth running of CBS there will be an advance TOT training for different modules.

Training for core technical team must be provided by the owner or developer of the CBS.

### 3.6 Schedule of deliveries

1	2	3	4	5	6
Item No.	Description of Item	Unit of Supply	Quantity of Units required	Point of Delivery	Schedule of Requirement
<b>6.1.01</b>	<b>1st phase (include Piloting):</b> Supply, Installation, Customization and Implementation of Online Real Time Core Banking Solution (CBS)to comply present <b>requirement with Business Dimension &amp; Future Projection</b> of Probashi Kallyan Bank as described in Table-01 & Table-02				
<b>i)</b>	License with system Study, Design component and Module, Installation and customization	Unit	DC, DRS, Head office and 63 (Sixty Three)branches for unlimited user	PKB Head Office and Annexure-A	<b><i>Delivery period: total 9 months from the date of signing contract</i></b> 63 branch data migration & live.  Software License Period will start from 01 month before GO LIVE(date will be announced by PKB)
<b>ii)</b>	Third Party Software (if any, Must have license)	Unit	-Do-	-Do-	
<b>iii)</b>	Data migration from the existing Banking Solution to New Proposed System.	Unit	-Do-	-Do-	
<b>iv)</b>	Implementation of CBS with all modules as specified in technical specification section 07.	Unit	-Do-	-Do-	
<b>vi)</b>	Test Server	Unit	DC, Head Office	-Do-	2 months from the date of signing contract.

### 3.7 Data, facilities and local services to be provided to the Client

#### i) Data Migration

- a. The Firm will be responsible for successful data migration from the legacy systems to the new environment for all branches and head office department and others if necessary. It is the Firm’s responsibility to liaise with the legacy system for the purpose of data mapping and extraction in

whatever format the CBS. The bank will not bear any additional cost for data migration, nor will be responsible for the same. The Firm has to develop Data Migration tools for the existing Banking Application Software for smooth Data Migration, which shall be use for entire project/any future data migration. The presently running software in 63 branches is detailed as follow :

Name of Branch Banking System	PKB System Software
Database Management System	MS SQL Server (Standard Edition 2012 version)
Operating System	Windows Server 2012
Development Language	PHP
Reporting Tools	FPDF
No. of Branches	63
Location of Branches	All over the country
Application Type	Web-Based
Database Location	Central Database

- b. Entire data pertaining to live accounts (from the time of account opening or from the time the data is available) for accounts like Demand Deposit, Term Deposits, Recurring deposits, Loans and Advances, Remittance and Foreign Trades etc. should be migrated to the proposed solution for all the branches being converted to CBS. The history data should be at least 5 years to comply the account operation and statement as per product (for all products, accounts, and schemes supported by the legacy application), general ledger, profit & loss statements, trial balance, account master information, standing instructions and transaction history (including GL, P&L heads and other office accounts) and should also support printing MIS reports as desired by the Bank for the legacy data migrated.
- c. Migration of all outstanding entries from the legacy systems to the new CBS application for the identified general ledger for future reconciliation.
- d. The Firm will be responsible for formulating the “Data Migration Strategy” and process documents which will have to be reviewed and signed-off by the Bank prior to commencement of the data migration exercise. The Online CBS Firm would need to factor all efforts to liaise, interact, develop tools etc. from the legacy system to obtain the data as desired by the CBS solution.
- e. The Firm will give the Bank adequate time to review and sign-off the Data Migration Strategy and process documents.
- f. All comments and suggestions of the Bank must be incorporated in the data migration strategy and process documents before obtaining sign-off.
- g. The Firm may associate the Bank’s personnel who are proficient in the legacy systems for assistance during the data migration exercise.
- h. For this purpose adequate training would need to be impacted by the Firm to the Bank’s personnel for the same.
- i. In the event of any gaps in the field mapping reports, the same would be discussed with the Bank and the agreed solution would be documented by the Firm and signed off from the Bank at no additional cost to the bank. The Firm would give the Bank adequate time for the review of the agreed solution.
- j. The Firm shall ensure that workarounds or default values that are moved to the production database as a result of gaps in the field mapping are duly taken care of after successful migration to CBS and the Bank officials are informed of the same in writing.
- k. It will be the responsibility of the Firm to ensure complete data cleaning and validation for all data migrated from the legacy systems to the new application.
- l. The Firm will be responsible to distill the data as per the software / upload format required by the solution. It will be the responsibility of the Firm to convey to the Bank, at least 15 days in advance from the date of migration, all the mandatory fields required for the functioning of the proposed applications that are not available in the legacy systems and that needs to be obtained by the Bank.

- m. In the event the Bank is unable to obtain all the mandatory fields as conveyed by the Firm, the Firm shall suggest the most suitable workaround to the Bank. The Firm shall document the suggested workaround and sign-off will be obtained from the Bank for the suggested workaround.
- n. The Firm will be responsible for development of data entry programs / applications with appropriate validations/checks that may be required for the purpose of data migration in order to capture data available with / obtained by the Bank in non – electronic format. These programs / applications should be made available to the Bank at least 30 days in advance from the date of migration. The Firm will be responsible to install the data capture tool at the branches where required and train the users on data entry.
- o. The Firm will conduct training for the personnel or any other third-party data entry agencies during the time of data entry with their responsibility and cost.
- p. The Firm will be responsible for uploading the data entered by the Bank through the manual data entry screens, programs / applications.
- q. The Firm shall ensure that sufficient training is imparted to the data migration team of the Bank with regards to but not limited to Online CBS data structure, field mapping requirements, field validations, default values and gaps in field mapping reports.
- r. The Firm shall develop the data conversion programs to convert banks data to Online CBS upload format. The Software Developing/Software Solution Providing Firm shall perform mock data migration tests to validate the conversion programs.
- s. The Firm will be responsible for assisting the Bank in conducting the acceptance testing and in verifying the completeness and accuracy of the data migrated from the legacy applications to the proposed systems.
- t. The Bank or its consultants may, at its will, verify the test results provided by the Firm.
- u. Any gaps / discrepancy observed will be reported in writing to the Firm, who will act upon it and resolve the same immediately or within 7 working days from the day of reporting the same.
- v. The Firm will be responsible for obtaining the data from the branches for the purpose of migration.
- w. The Firm will be responsible to develop control reports for verification of the data both before and after migration.

## **ii) Testing**

- a. The Bank proposes to conduct “User Acceptance Test” (UAT), “User Verification Test”(UVT) testing for the purpose of ensuring that all the functionality requested for by the Bank is available and is functioning accurately. The UAT would be carried out for the Online Real Transaction of CBS including the entire proposed module, all the delivery channels and all the 3rd party software proposed. The end to end system from Head Office and Branches.
- b. The Firm will convey to the Bank that all the customizations that are required to “Go Live”, as agreed upon and signed off by the Bank are completed and the solution is ready for testing.
- c. The Firm shall ensure the Bank that the customized CBS is tested for Security Testing like Penetration Test, Vulnerable Assessment & Security Code Review as well as Performance Testing from “Software Quality Testing and Certifying Center of BCC” or any other recognized testing center as prescribed by the Bank.
- d. The Firm will set up test servers to operate a minimum number of concurrent users/ branches/transactions/accounts. The test server shall support simultaneous data migration testing and install the applications including the customizations and parameterization as per Bank’s requirement and upload live data of a sample branch in the test server. The Bank expects the test environment to be available to the Bank at all times, for the purpose of testing. The Firm is expected to provide for the requisite test and development infrastructure including hardware, software, operating system and database for all applications including any 3rd party solutions being offered by the Firm. The Bank expects the Firm to set up the required solutions (including the client desktops) and provide connectivity to test server at DC/DRS at the desired testing center of the Bank for the purpose of testing. The Bank shall not pay any additional amounts to the Software Developing/Software Solution Providing Firm for the purpose of creating the test environment.
- e. The Firm will prepare client environment for the solution on the PCs provided by the Bank.

- f. The Firm will assist the Bank in preparing test cases including test data.
- g. The Firm will assist the Bank in conducting all the tests and analyzing / comparing the results. The Firm shall provide minimum 06 (six) full time resources conversant in all business areas, for troubleshooting during the entire UAT process.
- h. Any deviations / discrepancies / errors observed during the testing phase will be formally reported to the Firm and the Firm will have to resolve them in priority basis and sign-off from the same will be obtained from the Bank. However, workaround solution should be provided, with respect to errors and bugs affecting the functioning and performance of banking operations.
- i. The Firm will be responsible for maintaining appropriate program change control and version control for all the modifications /enhancements carried out during the implementation / testing phases.
- j. The Firm will be responsible for providing and updating system & user manual as per the modifications.

### **iii) Project Implementation**

- a. The project implementation will consist of implementing the proposed Online Real transaction of CBS with all modules as defined in the Tender schedule including the delivery channels and 3rd party applications in the 63 branches, Head Office DC and DR Site.
- b. The Firm will coordinate with and responsible to hardware and other software vendor for setting up all the servers at the DC and DRS. Installation & Configuration of the OS, RDBMS, Utility Software, Security Software and Management Software in all the places/sites.
- c. The Firm will also coordinate with and responsible for setting up all the networking and communication hardware and software and testing of the same.
- d. The Firm will be responsible for installing the applications with all the customizations duly tested.
- e. The Firm will set all the parameters in the applications as accepted in the test environment. The Firm shall be responsible for accuracy of the parameters set according to business needs of the Bank.
- f. The Firm will be responsible for migration of the legacy branch data to the new system.
- g. The Firm will be responsible for imparting the required training to the branch, Head office Divisions and Divisional Offices personnel prior to implementation.
- h. The Firm is required to be present at each of the branches/offices under migration for at least the first week after the branch has been migrated to the proposed solution for handholding, troubleshooting and hands-on training. Adequate personnel of the Firm are required to be presenting on-site, conversant in all business areas of that branch.
- i. The Firm will assist the Bank in testing the reports generated using the proposed application with those generated by the old system during the parallel run. The Firm's personnel will investigate any differences observed in the report generated using legacy system as compared to the report generated from the Online CBS and initiate corrective action.
- j. The Firm will assist the Bank in deciding when to discontinue the parallel run.
- k. The Firm will be responsible for implementing the delivery channels and ensure that the customers of the branch being converted to the Online CBS are able to utilize the delivery channels.
- l. Pilot implementation phase will be deemed complete once the Firm has obtained a sign-off for implementation from the Branches, Head Office Divisions and Divisional Offices. The Branches, Head Office Divisions and Divisional Offices will need to have a live run successfully for a period of at least 30(Thirty) working days before signing off on project implementation.
- m. In the event of any deviations / discrepancies / errors observed at the pilot branches, the sign off will only be given by the Bank once the deviations / discrepancies / errors reported by the branch have been successfully rectified by the Firm.
- n. The Firm shall depute relevant personnel to attend and resolve the branch problems immediately.

### **iv) Flexibility**

- a) Flexibility in design should allow fast and inexpensive system changes to support new regulations and changes in products and services, as well as changes in reporting requirements.
- b) Should have the ability to incorporate new requirement.

### **3.8 General Technical Requirement**

The Online Real-Time Core Banking Solution (CBS) should meet all the general-purpose requirements while providing services by the solution. These are mainly attributed to business performance, functional performance and real time performance requirements.

### **3.9 Warranty and Technical Support**

- a. The Firm shall provide 1 (One) year full warranty of Online Real-Time Core Banking Solution (CBS) and 4(Four) years maintenance & technical support services of the same. Warranty will start after completion of successful implementation of CBS with all modules specified in the tender schedule in Data Center, DRS, Head Office Department, and Branches. (The Firm is requested to submit the service under warranty).
- b. The Firm needs to mention Annual Software Maintenance coverage in detail for CBS as well as other software components (related to CBS).
- c. The Firm needs to provide dedicated technical person and full place support team during the implementation period at PKB premises to support the CBS smooth operation. Onsite (Physically present at PKB) support team should as follows:
  - i) DBA: 1 person.
  - ii) CBS operation expert: 3 persons.
  - ii) Developer level: 2 persons (Programmer).

The signed CV of the support personnel must be included in the schedule.

- d. For the 4 years Maintenance & Technical Support will be provided by staying full time at the premises of PKB. It means that 1 DBA, 3 CBS operation experts and 2 developers will be physically available through the banking hour at PKB. Moreover, for any kind emergency at any time (24/7), they will response to fix the issue.

## **4 Experience, Resources & Delivery Capacity Required/Institutional arrangements**

This is a national project with utmost importance towards the digital Bangladesh goal so the Firm must prove that they have solid technical background and operational strength to undertake and take this work forward without any hindrances. The Firm must also have adequate technical ability, resources, human resources and processes. As such, following are defined as minimum eligibility criteria:

- (1) The Firm must have 03 (three) years in relevant practical experience of developing and implementation of Online Real-Time Core Banking Solution (CBS) in the Banking sector. Necessary experience documents need to be attached. Must have registered Limited company with Registrar of Joint Stock Companies (RJSC) in Bangladesh having valid Certificate of Incorporation, trade license, TIN, Income Tax & VAT certificate.
- (2) The Firm must have business continuity for the last five (05) years.
- (3) The Firm must have at least three (03) years proven experience in providing support services of Online Real-Time CBS.
- (4) The Firm must undertake that supplied Online Real Time Core Banking Solution (CBS) is capable of handling minimum 4000 users and 2000 concurrent users across 500 branches of the Bank.
- (5) The Firm must have Online Real Time Core Banking Solution (CBS) running in live at least one Bank in

Bangladesh. Up-to-date experience certificate and relevant documents must be submitted in this regard.

(6) The Firm should have ISO-9001:2008 certificate/ISO-27001:2005 (Information Security Management System) certificate/CMMI (Capacity Maturity Model Integration) Minimum Level 3.

(7) The Firm must have an experience of supplying and implementing Online Real-Time CBS with related services for minimum BDT 4.00 (Four) Crore under a single contract in the last 10 (ten) years (years counting backward from the date of publication of EOI in the newspaper).

(8) The firm must have a minimum amount of liquid asset or working capital or credit facility shall be BDT5.00 (Five) crore.

(9) The minimum required qualified and experienced Key professionals are thirty (30) as stated bellow:

**(a) Technical Staff:**

#	Name of The Position	Nos.	Qualification	experience
1	Project Manager	1	Masters in CS/CSE/IT/ CE or Master in WRE or MBA ( BSc in CS/CSE/IT/EEE/CE/WRE/B.Sc. Ag)	10 years' experience in Software Development Management
2	Software Architect/Sr. Software Engineer	2	BSc in CSE/CS/IT	7 years' working experience with minimum 5 years' experience in related field.
3	System Analyst /Business Analyst	2	BSC in CSE/CS/IT/EEE	Proposed personnel should have at least 10 years' working experience with minimum 5 years' experience in related project. Relevant Certification will be added advantage.
4	Database Designer	2	BSC in CSE/CS/IT/EEE	Proposed personnel should have at least 10 years' working experience with minimum 5 years' experience in related field.
5	Developer /Programmer	6	Minimum Bachelors in any computer science related discipline.	3 years' working experience in related field.
6	UX Expert (Specializes in the design and development of user interaction)	2	Minimum Bachelors in any computer science related discipline.	3 years' working experience in related field.
7	QA Expert	2	Minimum Bachelors in any computer science related discipline	5 years' experience with minimum 03 years' experience in related field.
8	Trainer	5	BSc in CS/CSE/IT/EEE/ CE/WRE/Ag)	at least 5 years' working experience.
9	UI Designer	2	Minimum Bachelors in any science discipline	with at least 5 years' working experience
10	Implementation Project Manager (for Piloting Phase)	2	BSc in CS/CSE/IT/ CE/Ag)	3 year's working experience.
11	Jr. Developer	4	Minimum Bachelors in any computer science related discipline	2 years' working experience in related field

## 5. Documents to be submitted by The Firm

The Firm must submit the Information regarding Experience, Resource & Delivery Capacity of the firm with mandatory document and certification including documentary response of the firm chronologically as specified bellow:

#	Information regarding Experience, Resource & Delivery Capacity of the firm	Firm must submit the document and certification in their offer.
1.	Company Profile	Submit Company Profile Not more than 50 page
2.	The Software Developing / Software Solution Providing firm Must have 03 (three) years in relevant practical experience of developing and implementation of Online Real-Time Core Banking Solution in the Banking sector.	Necessary experience documents need to be attached.
3.	Must have registered Limited company with Registrar of Joint Stock Companies (RJSC) in Bangladesh.	Submit up-to-date Certification of Incorporation
4.	Trade License	Submit up-to-date Trade License
5.	TIN, Income Tax	Submit Last financial year Income tax clearance/Payment/Legal document
6.	VAT certificate	Submit Vat Registration Certificate
7.	The Software Developing / Software Solution Providing firm must have been in business for the last five (05) years.	Necessary experience documents need to be attached.
8.	The Software Developing / Software Solution Providing firm must have at least three (03) years proven experience in providing support services of Online Real-Time CBS.	Notification of Award and Work Experience certificate from the client Bank in recent date with contact details must be submit
9.	The Software Developing / Software Solution Providing firm must undertake that supplied Online Real-Time Core Banking Solution (CBS) is capable of handling minimum 4000 users and 2000 concurrent users. It must also have the capacity to operate 500 branches of the Bank.	Must submit the Under taken to compile the Issue
10.	The Software Developing / Software Solution Providing firm must have Online Real-Time Online Real Time Core Banking Solution (CBS) running in Live at least one Bank in Bangladesh.	Notification of Award and up to date experience certificate and relevant documents must be submitted in this regard.
11.	The Software Developing / Software Solution Providing firm should have ISO-9001:2008 certificate/ISO-27001: 2005 (Information Security Management System) certificate / CMMI (Capacity Maturity Model Integration) Minimum Level 3.	Submit the related document
12.	The Software Developing / Software Solution Providing firm must have the experience in implementation of Online Real-Time CBS with related services for minimum BDT4.00 (Four) Crore under a single contract in the last 10 (ten) years (years counting backward from the date of publication of EOI in the newspaper).	Notification of Award and Work Experience certificate from the client Bank in recent date with contact details must be submitted.
13.	The Software Developing /Software Solution Providing Firm must have the minimum amount of liquid asset or working capital or credit facility shall be BDT5.00 (Five) crore.	Submit the Copies of annual report and audited balance sheet for the last 03(three) financial years
14.	Training & Technology Transfer	Firm should submit the training and Technology Transfer Document.
15.	Submit Gap Identification Technique and related document	Firm should submit their Technique and deliverable document.
16.	Implementation Methodology	Implementation Procedure with system study, design, migration, installation, customization Monitoring System, Team Member List
17.	Schedule of deliveries	Submit Implementation Schedule with GANT Chart

18.	Data migration plan	Submit data migration plan from existing SQL Data using in PKB System to the proposed new systems
19.	Documents and brochures pertaining to the Core Banking Solution that will be deployed in the proposed solution	To be submitted by the Firm
20.	List of clients who are using your CBS	To be submitted by the Firm
21.	CV of qualified and experienced Key professionals	Submit their Key Profession Bio-Data with following Information:  Name, Address, Education, Profession Certificate, Join Date in the Firm, Present Position, Experience. The Bio-Data shall be duly signed by the individual key person.

**-The End-**