Participating Bank’s Middleware Software
For Bangladesh Bank RTGS Systems

Issued by –
Information Technology Division
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37, Dilkusha C/A, Dhaka.

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1. Executive Summary

Bangladesh Bank has taken initiative to introduce RTGS system (BB-RTGS) in the country. All the schedule banks are required to take necessary preparation(s) to continue transactions over BB-RTGS system very soon. BB-RTGS will use MX (ISO 20022) message format for data exchange between central bank’s system and participating bank’s system through Virtual Private Network (VPN). Bangladesh Bank will provide a participating module named ‘STP Adapter’ to all of the schedule banks for seamless communication between BB-RTGS and the participants. In this regards, Banks have the opportunities to create MX messages from their Core Banking Software directly on straight-Through Processing (STP) environment or choose to adopt a ‘middleware’ based software solution as an interim workaround.

Regarding such statutory requirement, South Bangla Agriculture & Commerce Bank Ltd. intends to implement Payment Gateway System (PGS) as a Middleware software system, which will, allows the participating banks to establish connectivity with Bangladesh Bank’s Payment Gateway including BB-RTGS, EFT, BACH and if any others integrating with banking software system to uphold its technological advancement. SBAC Bank Ltd. is going to procure a robust sanctions screening software system, which will be able to meet all of the necessary requirements to remain compliant.

Major functions of PGS are to:
- Support of connectivity with BB RTGS;
- Support of online and offline entry of payments (with maker-checker concept);
- Support of manual/automated interface with Participant CBS (Core Banking System) and other systems;
- Support of any proprietary and MT to/from MX message formats;
- Support of PKI infrastructure of BB RTGS system.

The Participant's User Interface installed at participant's gateway should be able to prepare/ transmit/receipt of messages via user screens specially adapted to rules of BB RTGS system, as well as for messages on participant positions and reports on system operation. The software should also provide tools to monitor participant's activity in the RTGS system, message receipt/processing/ formation/ transmission of transactions and queries.

Major functional modules for PGS will be:
- The communication module must provide interfaces for interaction via VPN or SWIFT
- Message exchange and conversion module must provide message validation, parsing and conversion facilities.
- System must have Local database to store payments, enquiries, dictionaries and other data.
- Reporting module to generate standard reports based on data stored in the local database.
- An Administration and User management module supports administration and User management functionality.
- PKI subsystem to provide interaction with BB RTGS PKI including message sign/verify functions.
- Payment Gateway must be Web based solution, where it will be accessed by Users via Web interface.
- Users workstations will be installed in the bank’s head office or in branches.
- System must provide Maker/Chaker facilities.
2. About SBAC Bank Ltd.

South Bangla Agriculture & Commerce Bank Ltd. is one of the new generation private banks in Bangladesh established in 2013. It is the most progressing and technologically advanced bank among its competitors.

Registered Name : South Bangla Agriculture & Commerce Bank Limited
Corporate Head Office : 37, Dilkusha C/A, Dhaka.
No. of Branches : 34 (Thirty Four)
No. of overseas Branches : No
No. of Employee : Over 500

3. Existing Software System

SBAC Bank Ltd. is in use of the following software systems:

<table>
<thead>
<tr>
<th>Software Category</th>
<th>Software Name</th>
<th>Vendor Name</th>
<th>OS/Platform</th>
<th>Database</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Banking System</td>
<td>T24 (R12)</td>
<td>Temenos</td>
<td>HP-UX</td>
<td>jBase</td>
</tr>
</tbody>
</table>

NB: Participant vendor has to take full responsibility to interface and handshaking with the mentioned CBS software system.

4. Scope of Work

One of the jobs of a central bank is to provide a platform for settlement of transfer of funds across the agents of the financial system that it regulates. RTGS or REAL TIME GROSS SETTLEMENT is such contemporary platform or facility where settlement of large volume transactions happen on a real time continuous basis where payer and payee is receives instantaneous result. In addition RTGS offers greater facility for DVP (Delivery Versus Payment) and PVP (Payment Versus Payment) mechanisms present in Security market settlement and Foreign Exchange Transactions. Here is a concise discussion over Business Scope and Technical Scope in RTGS project.

1) There will be 6 (Six) types of participants in the RTGS system which are -
   a) Direct Participant: Those who have settlement account with Bangladesh Bank.
   b) Indirect Participant: They do not have direct settlement account and will have to communicate through the Direct Participants.
   c) Sub Participants: Branches of participant commercial banks having a settlement account in BB will fall under this category.
   d) Technical Participant: Clearing Systems like (NPS, EFT etc.)
   e) Monitoring Participant (Like Customs, Excise and VAT authority of NBR): They will only be allowed to view inward fund movement.
   f) Controller Participant: Participants with the rights to send debit instructions to BB accounts. (Controller General of Accounts, Controller General of Defense Purchases, Bangladesh Railway etc.)

Main functions supported by Payment Gateway system

The suggested solution provides the following main functions:

- To support business flows and message formats according to BB RTGS system requirements via VPN or SWIFT network with BB RTGS;
- Provides online monitoring of payments, account balances and other information in BB RTGS via VPN network of BB RTGS;
- Supports automated exchange with BB RTGS system using MX message formats according to message rules established in BB RTGS;
- Support on-line information regarding business day schedule and current window opened in BB RTGS;
- Supports Web-based User Interface for Participant HQ and Branch Users that allows payment and request entry, validation, approval (Maker-Checker concept);
- Allows payment entry by HQ and Branch staff of Participant;
- Provides message format control and validations;
- Keeps and manages payment in its own database;
- Supports a set of interfaces for integration of Participant Core Banking system and other systems (e.g., Internet Banking, Treasury etc.) with BB RTGS;
- Supports conversion utility between MT and MX message formats;
- Supports PKI infrastructure established in BB RTGS;
- Provides local User management.

4.1 Present Business Scope in RTGS

The present business operations that includes large volume and time critical settlement support of Bangladesh Bank can be summarized as under-

1) **Money Market settlement:** In money market operation a Bangladesh Bank Cheque is issued in favor of counterparty bank or NBFI for crediting their settlement account being maintained at BB by debiting the settlement account of our bank. Normally such cheques are issued when are lending to counterparty and when we return the borrowed fund to the counter party. At the time we are borrowing fund from counterparty and when counterparty returns us the amount previously lent along with interest we need to deposit Bangladesh Bank cheque received in our favor from the counterparty by using the BB prescribed deposit slip. The Bangladesh Bank cheques issued and the deposit slips prepared both requires the signatures of two Authorized Officials to authenticate the transfer. The issued cheques and the cheques received have to be presented to Bangladesh Bank between 11.00 A.M to 4.00 P.M for settlement/book transfers. In case there is shortage of fund the settlement is delayed with permission from Bangladesh Bank till fund can be arranged for settlement.

In CBS the money market related transactions are captured through creating contracts in the MM Module. SWIFT settlement messages can be attached to the contracts for them to be generated once the contracts are authorized. If this settlement message can be successfully transmitted to RTGS platform of Bangladesh Bank as payment messages in case we are lending or returning funds to counterparty. For receipts of funds during borrowing and lending return messages received from BB RTGS can be cross checked with the generated accounting entries of the liquidated MM contract.

The adopted RTGS system must have the capability of being interfaced with TEMENOS T24 MM module and the STP adapter supplied by Bangladesh bank.

2) **Security Market Transaction:** Security market operation is handled by MI module at BB End. The Market Infrastructure/MI module supports devolvement of securities, security purchase through Bids. Once a security is devolved/purchased from Bangladesh Bank purchase cost is automatically deducted from the Settlement account.
maintained at BB. Security holding report is automatically updated through MI module operation of BB. In case of ALS repo Bangladesh Bank MI module facilitates credit of funds in the settlement account. During Reverse Repo of securities with counterparty, Bangladesh Bank facilitates settlement as per DVP method through MI module. The settlement account is debited automatically without the issuance of Bangladesh Bank cheque in the name of counterparty. In case interbank Repo the borrowed amount is automatically credited to our settlement account and transfer of securities is handled through the MI module of BB. In both the cases of Inter-bank Repo and Reverse Repo adequate information have to be given in the MI module portal from Treasury Back Office (TBO) end to complete the settlement process under DVP methodology. At the time of outright sell of securities, once the details are uploading in MI module portal from TBO end, settlement happens automatically without the need for collecting and depositing Cheques at Bangladesh Bank counter.

In TEMENOS T24 security related transactions are captured through creating necessary contracts in the security related modules in order to create necessary accounting reflection in general ledger.

The Adopted RTGS system must be capable of receiving related messages generated at BB-RTGS after settlement of security transaction.

3) **Customer related transaction** settled through fund transfers using Bangladesh Bank Cheques are related with transaction related to regulatory payment, syndication loans, loan take over Inter-Bank and inter party large volume transfers, remittance movement, inter-bank account transfer etc For making outward fund transfer from bank end the related customer have to send a request to their respective branches. Based on the request received the Branch issues emailed instruction to TBO mentioning the beneficiary bank name, date of transfer and amount of transfer. Once information is received at TBO end TBO issues Bangladesh Bank Cheque. In case of fund is received from counter party bank, TBO arranges to collect the proceeds of the cheque and then issues necessary instruction for the Branch to credit the fund in the customer's account. At the time the customer is making regulatory payments like payment of collected VAT and other fees to Govt. TBO issues cheques at the request of Branch and the fund is deposited at the designated account. Other than from customer transfers regulatory payments are also made on account of the Bank itself like VAT payment, Deposit Insurance Premium payment, Deposit of BRTA collected fund, penalties and fees to be paid to Bangladesh Bank. In all such cases TBO expedites settlement by issuing cheques in favor of Bangladesh Bank itself.

4) **In TEMENOS T24** the customer transfers are handled through making of several Fund Transfer Contracts as per agreed process. Customer credits are transferred to designated branch of the customer from there the branch officials credit the fund to the customer’s account.

Once RTGS is introduced the outward fund transfer can be done following the present procedure where TBO will transfer the fund using the FT contract settlement message to initiate the necessary payment instruction for the BB-
RTGS using the adopted RTGS system in the Bank. Else the necessary Fund Transfer instruction may be transmitted from the Branch end only to be authenticated from TBO end; Direct Participant. For making regulatory payment on behalf of the bank a process with the same analogy of customer payment can be accepted. For incoming fund transfers, Instructions coming through Adopted RTGS system will be used by TBO to Transfer funds to the customer account following the previous procedure. Subject to introduction of STP in TEMENOS T24 the received message can be processed to generate the necessary Fund Transfer Contract in the system. In that case an Authorization will complete the fund transfer.

The adopted RTGS system must support transmission and receipt of fund transfer instruction to/from BB-RTGS to facilitate transfer settlement. It should have the capability to receive instruction from customer web address or mobiles and process necessary instruction for the core banking solution to generate fund transfer instruction to permit transfer via RTGS. In other words the adopted RTGS system should be capable of processing fund transfer requests received via secured e-banking channel.

5) **Transfer of Fund** to outside Dhaka Branches through Bangladesh Bank Cheque settlement process is done by depositing Bangladesh Bank Cheque along with filled up form to the designated counter of Bangladesh Bank. The Settlement account of Dhaka office is then debited by Bangladesh Bank and the amount is transferred to the settlement account of the intended outside Dhaka Branch of the Bank. The settlement account of the outside Dhaka branch of the bank is maintained at the Bangladesh Bank branch office of that area. Apart from the Taka settlement account that we have with Bangladesh Bank Dhaka office there are settlement accounts of the bank spread across Bangladesh Bank branch offices located in a) Chittagong, b) Sylhet, c) Barisal, d) Bogra, e) Rajshahi, f) Khulna. While transferring the excess balance from the settlement accounts of outside Dhaka the relevant Bank Branch uses Bangladesh Bank facility and has to deposit Bangladesh Bank cheque of the intended amount. On receipt of such transfer instruction the Bangladesh Bank Dhaka office credits the settlement account maintained there with the transferred amount.

In TEMENOS T24 the movements of fund between different settlement accounts of different Bangladesh Bank offices are handled through contracts made in the FT module. Such contracts help generate the necessary accounting reflection of the transfer.

The adopted RTGS system must support this own account transfer once Bangladesh Bank provides the operational module of such transactions through BB-RTGS.

6) Govt. savings certificate sell operation conducted by the bank on behalf of Bangladesh Bank leads to generation of outward and inward fund flow to and from accounts maintained at Bangladesh Bank end and Settlement account of the Bank. At the time depositing sell proceeds principal branch sends a written request to the relevant department of Bangladesh Bank to debit the settlement account of the bank. On receipt of such instruction Bangladesh Bank realizes
the sales proceed as per their convenience from the settlement account of Bangladesh Bank. For sales operation of outside Dhaka the transaction is handled in a similar fashion by the designated Bank Branch of that area. Settlement account maintained at the branch offices of Bangladesh Bank are debited once the designated Branch sends the debit instruction. After debit of instructed amount Bangladesh Bank informs the relevant branch of the transaction via letter. At the time of Interest and redemption value receipt Bangladesh Bank credits the settlement account maintained at its end with funds for which a claim has been sent from the different designated branches of the bank. For claims sent from outside Dhaka branches of the Bank, the settlement accounts of respective areas are credited. The credited fund is then distributed by the designated Bank branch among the bank branches within its sales group.

In TEMENOS T24 the fund flow related to Govt. Savings certificate sales operation is handled by a series of pre agreed FT and DE module transfers involving TBO, designated Branch and sales group branches.

Once Govt. savings certificate operation related settlement operation is brought under RTGS by Bangladesh Bank the adopted RTGS system at Bank end must be able to handle such settlement. For outward transfer the system must be capable to sending necessary instruction to BB-RTGS after receiving transfer message from TEMENOS T24 contracts made for this purpose. The adopted system must be capable of receiving inward transfer messages from BB-RTGS once Bangladesh Bank credits the interest and redemption value. The system must be able to send messages to TEMENOS T24 to create FT contracts automatically once STP is configured in TEMENOS T24.

Customer credit advices and prize bond winning notices from Bangladesh Bank is sent to TBO (Treasury Back Office), from where it gets distributed to the relevant branch or division of the bank.

In TEMENOS T24 such incoming credit transfers are captured through contracts made under FT module.

The adopted RTGS system of the bank must be able to receive such credit transfers from Bangladesh Bank if and when such operation is brought under the jurisdiction of BB-RTGS. Once STP capability is configured in the CBS in use the RTGS system must be capable of triggering necessary contract in CBS in unauthorized state.

7) **Fund transfers to and from settlement account** in response to netted positive and negative fund transfers generated from BACH and NPSB settlement is initiated by Bangladesh Bank. After completing the necessary Debits and Credits it sends necessary information to BACH Department for clearing related settlement figure and to Card Division for NPSB related settlement figures. Settlement figures for high value clearing and those for normal clearing are settled separately. The information received by BACH and CARD division is then passed to TBO for generating necessary accounting entries.

In TEMENOS T24 such settlement entries of settlement account are given effect by creating FT module contract.
Under RTGS the information received in the RTGS system of Bank from BB-RTGS will be transformed into necessary FT contract at TBO end manually once confirmation is received from respective department/division. Once STP is configured in TEMENOS T24 the adopted RTGS system must be capable of triggering necessary contract in CBS to capture the settlement transaction.

8) **Trade payments in FC** against local import bill payment is done by issuing FC denominated FDDs drawn on FC clearing account of the bank being maintained at Bangladesh Bank. In the opposite case where we are being paid FC denominated Import Bills against local import LC the counterparty bank also makes payment vide issuing FDDs drawn on their respective FC clearing account maintained with Bangladesh Bank.

In TEMENOS T24 trade payments and receipts against local FC denominated import Bills are handled through contracts created under BC and FT module. At the time of payment bank ledger is credited from BC contract. FDD is issued separately and mailed to counter-party bank. For payments received the FDD that has been received from counterparty bank is sent to TBO for getting it cleared through Bangladesh Bank FC clearing account. On receipt of information of successful clearing of the proceeds the branch initiates necessary FT contract to realize the amount.

As and when trade payment against local Import bill payment in FC is granted in BB-RTGS the adopted RTGS system of the bank must be capable of sending payment messages on the basis of SWIFT MT payment message generated in the TEMENOS T24 contract. While receiving payment from counterparty bank, Bank side RTGS system must be capable of receiving payment message from BB-RTGS. Based on the information received the necessary contract will be created at CBS end. Once STP is configured in CBS the adopted RTGS must be able to trigger necessary FT contract in unauthorized state to recognize the incoming transfer.

9) **FX deal related transaction** with local bank is settled through settlement facility of FC Clearing account provided it has been agreed that settlement is to be done with FDDs. Normally FC/BDT deals are settled through Bangladesh Bank. Also some FC/FC deals are settled within the country. The BDT cheque associated with the deal is also cleared through Bangladesh Bank settlement account. For purchased currency we receive a BDT cheque/ FC denominated FDDs from counterparty and in reciprocity we deliver FC Denominated FDDs / BDT Cheque to counter party. For sale of currency the opposite of the situation holds true.

In TEMENOS T24 the FX transactions are captured in contracts under FX module. The accounting entries are generated from the contracts and associated payment messages also can be obtained from the contracts.

Provided BB-RTGS facilitates the Payment Vs Payment Settlement, the RTGS system adopted must support sending of payment messages to BB-RTGS when TEMENOS T24 contracts are made and authorized. As a result the need for exchanging FDDs and Cheques will become redundant and settlement will become risk free and less time consuming.
10) **For transferring Fund to ACU accounts** maintained in ACU member countries and for transferring Fund to overseas NOSTRO accounts a written request have to be sent to Bangladesh Bank FC clearing account. Based on the request Bangladesh Bank arranges for the transfer.

In TEMENOS T24 the transfer is booked in the GL through contracts created under FT module.

The adopted RTGS system must be capable of sending necessary fund transfer instruction to BB-RTGS after receiving the contract generated message from FC BUS (Field Controller).

11) **Current / STD Accounts are held with other commercial banks** in order to facilitate transfer of Cash and remittance. These accounts often have to be replenished and at times funds have to be transferred from these accounts to settlement account maintained with Bangladesh Bank. Transfers to these accounts are done by issuing Bangladesh Bank Cheque. Cheque is cleared through cheque settlement process run by Bangladesh Bank. For transferring excess fund from these accounts to Settlement Account of Bangladesh Bank a request is sent to the account maintaining bank for a Bangladesh Bank cheque which is then deposited at Bangladesh Bank counter. It is a time consuming process. Likewise our bank also maintains current/STD account of other local banks. Transfer to and from these accounts are also done through cheques issued on Bangladesh Bank Taka settlement account.

In TEMENOS T24 the transaction is captured by generating contract under FT or DE (Delivery) module once the transaction is passed through the settlement account.

The adopted RTGS system must support transfer of fund to our account maintained with other banks and transfer fund from their account maintained with us. The SWIFT payment messages configured with the FT contract will trigger payment instruction in the RTGS system. The incoming payment instruction received in the RTGS system should have the capability to generate relevant FT contract in unauthorized mode once STP is configured in the TEMENOS T24.

12) **Any and all other transaction** as mentioned in Bangladesh Bank’s Guidelines concerning Scheduled Banks and Financial Institutions [Ref.: Bangladesh Bank PSD Circular No. 02/2015, Dated April 06, 2015 & subsequent RTS/X specification of Bangladesh Bank Real-Time Gross Settlement System (BB-RTGS)].

13) Any other functional scope that will be specified by Bangladesh Bank from time to time has to be implemented.

RTGS with adequate facilities can greatly reduce the settlement risk and will be able to minimize the time needed for settlement. Efficient, cost effective and risk minimized settlement positively contribute in profitability, capital allocation and hence economic growth.
4.2 **Technical Scope in RTGS**

There is a set of questions attached (ANNEXURE-1) with this RFP by which the technical SOW (Scope of Work) will be defined. Participants are requested to put their answers on the availability of asking facility in the column “Response” and the column “Describe in Details” for any comments. Positive answers to the questions would be advantageous for the proposal to be considered. For response of tabular format questions, use the following legends:

- **Y** – Facility already exists in deliverable software
- **A** – Agreed to provide on development as free of cost
- **N** – Not supported / Not available

4.3 **Payment entry process in PGS system**

Payment Gateway system should allow to import data from participant’s information systems. The import needs to be done in automatic or manual mode.

The system should support imported messages are verified and it should allow to make necessary changes before sending them to the BB RTGS system. It should also permits to organize the verifications and the authorization the payment orders on a participant site according to the different combinations:

- **Step 1**: Creation of the transaction and saving them in the local database by Maker;
- **Step 2**: Primary validation of the prepared message by a Checker;
- **Step 3**: Final validation and sending transactions to the Central Node for settlement by Sender.

4.4 **Reporting**

Participants’ gateway application software must allow standard set of reconciliation reports that can be printed or exported in a set of standard formats.

The following standard reports are supported:
- Internal payments report;
- Account balance report;
- Reports on rejected or cancelled transactions;
- Reports on settled payments;
- RTGS statement report;
- Local User activity report.
- Other reports can be developed by Customer request.

4.5 **Following Business day schedule of BB RTGS system**

Payment Gateway system should support offline work. This means that Participants may create payment messages (or import them from CBS) even when RTGS system is off. When PGS system establishes connection with PGS system, it should automatically request RTGS system about current business day schedule and current window PGS system must not allow payments to be sent to the RTGS system if current RTGS window doesn’t allow payment processing. When RTGS system activates new window, PGS automatically registers this information and displays it on User screens.
4.6 Audit and Monitoring

PGS allows monitoring of all information in BB RTGS system. PGS provides an opportunity to change payments priorities in the real-time mode as well as to cancel unsettled payments.

4.7 Support of BB RTGS PKI infrastructure

Proposed solution has incorporated all necessary tools and libraries to interact with BB RTGS PKI. PGS software will care about digital signatures, verification process, and encryption/decryption of message exchange with BB RTGS via VPN. Participants will not need to make any changes in their systems to provide secure communication and payment exchange with BB RTGS system.

4.8 Connectivity with SWIFT system

The PGS SWIFT connectivity plug-in allows Participant to exchange payments with BB RTGS system via SWIFT network. PGS may switch communications between VPN and SWIFT alternatively as and when required by South Bangla Agriculture & Commerce Bank.

5. Understanding on Business scenarios of payment initiation and exchange

5.1 Scenario-1: Payments are initiated by CBS. Automated interface with PGS is available

This scenario can be used when the payments can be prepared by Core Banking system and STP interaction can be established between Core Banking System and Payment Gateway.

In this scenario other systems (Internet Banking or Treasury) may initiate payments instead of CBS with similar business flows.

Successful flow

Payment prepared by CBS is approved by the user of PG (Verifier) before sending payment to BB RTGS. Replies from BB RTGS are automatically delivered to CBS.

Unsuccessful flow

Payment prepared by CBS is rejected by the user of PG (Verifier) because he/she found and error in prepared payment. Rejected payment is not delivered to BB RTGS. Rejection notification from PG is automatically delivered to CBS.

5.2 Scenario-2: Payments are initiated through PGS workstation and approved in CBS

This scenario can be used when the payments cannot be prepared by Core Banking system but STP interaction can be established between Core Banking System and Payment Gateway. This interaction is used for delivering payment information to CBS and CBS can authorize payments before delivering them to BB RTGS.

In this scenario payments will be sent for approval to the system registered as “master” system (usually, Core Banking system).
Successful flow
Payment is prepared by the user of PG (Operator) and CBS approves the payment. After approval PG sends payment to BB RTGS. Replies from BB RTGS are automatically delivered to CBS.

Unsuccessful flow
Payment is prepared by the user of PG (Operator) and CBS rejects the payment. Rejected payment is not delivered to BB RTGS.
There is no delivering of payment to BB RTGS. Rejection alert from PG is shown on PG user’s screen.

5.3 Scenario-3: Payments are generated by CBS system. Automated interface with PGS is not available
This scenario can be used when the payments can be prepared by Core Banking system but there is no STP interaction between Core Banking System and Payment Gateway. Prepared payments are saved as files on external media, e.g. flash memory.

Successful flow
Payment prepared by CBS is approved by the user of PG (Verifier) before sending payment to BB RTGS. Replies from BB RTGS are delivered to CBS via the external media, e.g. flash memory.

Unsuccessful flow
Payment prepared by CBS is rejected by the user of PG (Verifier) because he/she found an error in prepared payment. Rejected payment is not delivered to BB RTGS. Rejection notification from PG is delivered to via the external media, e.g. flash memory.

5.4 Scenario-4: Interface between CBS and PGS is not available
This scenario can be used when the payments cannot be prepared by Core Banking System for export and they cannot be delivered to PG because there is no interaction between Core Banking System and Payment Gateway. Payments are prepared in CBS and PG independently. Replies from BB RTGS are captured to CBS manually.

Successful flow
Payment prepared by the user of PG (Operator) is approved by another user of PG (Verifier) before sending payment to BB RTGS.

Unsuccessful flow
Payment prepared by the user of PG (Operator) is rejected by another user of PG (Verifier). Rejected payment is not delivered to BB RTGS.

5. Customers & Accolades
Please list some prominent existing customers of the offered product and their contact information along with a scale of implementation (e.g. volume of transactions processed, benchmark, etc.). Are there benchmarks available for your product? Please provide the data volumes and processing times that were used to benchmark your current System for Real Time Screening and Batch Screening.
Please provide details of any independent evaluation conducted against the offered version of the product.
6. Licensing

Please elaborate on the licensing models supported for your product. Is your product available as a hosted solution? If yes then whether it is available in the cloud or onsite?

Is the product license perpetual (i.e. license to use even if SLA / AMC contracts expire) or dependent on ongoing AMC / SLA? Otherwise, is the product licensed for a fixed term and renewable / auto-renewable with / without additional payment?

Please share a draft license agreement for your product / service.

7. Implementation & Support

7.1 Software, Hardware & Environmental Pre-requisites:

Please describe the platform for the product. Describe the hardware and software requirements for the proposed solution in terms of compatibility and SBAC Bank’s environment – in particular, operating systems, database systems and message systems.

All software, hardware and environmental requirements for test, deployment, and operation of the solution considering given volumes and future expandability must be clearly specified so that relevant cost estimations can be made.

7.2 Implementation Strategy:

A clear implementation strategy and timeline must be declared to the Bank covering the following:

- UAT script preparation and execution
- Go-live switching and roll-back
- Pre-requisite hardware, software and environment
- Responsibility matrix
- Issue escalation

7.3 Training

During implementation, SBAC Bank’s staff must be rigorously trained for continuous and smooth operation of the implemented solution. As such, following must be addressed:

1. Technical training to SBAC Bank’s IT staff
2. Operation training to back-office and customer support staff

7.4 Manuals & Documentation

Please attach Product Catalogue, User Manuals and necessary documentations.

7.5 Confirmations

Before sign-off of Agreement, the following criteria must be met:

- Any agreements that need to be made with third-parties should be clearly communicated and executed.
- A service level agreement between the Bank and the vendor must be executed before Go-Live.
7.6 Post Implementation Support
An elaboration of the post-implementation support structure needs to be provided. What are your processes during technical issues and what are the service response levels? What are the hours of operation?
Bank needs to have a penalty / compensation clause in the relevant service level agreement (SLA) to ensure up-to-the- mark response and service in case of issues.
Please share any standard / draft SLA that you may have.
Describe the minor and major release and revision schedules planned for the product and how releases and revisions are distributed.

8. Financials
Please provide your financial offer/quotation separately. It should include the following:
- License fee / sign-up fee
- Module-wise cost breakdown
- Implementation period
- Recurring fee / annual maintenance fee
- Consultant / engineer onsite and offsite charges

9. Terms & Conditions
a. Sealed Quotation must be reached to us within 03.00 PM on June 29, 2015.
b. Delivery and Implementation must be made within a period of maximum 4 (Four) weeks from the date of Work Order.
c. Bidder has to make presentation of the software which must comply with the features specified in their proposal.
d. Bidder should have adequate experienced manpower to install, implement and 24x7 support (if requires) for the software.
e. Bidder should have the expertise to customize and enhance the features of the software within the deadline mutually agreed.
f. SBAC Bank Ltd. reserves the right to accept or reject any or all of the offers in full or partial with or without assigning any reason whatsoever.

Please provide us with a Technical and Financial proposal, which we believe would satisfy our requirement. Bidder must submit the Bids in original at sealed envelope, which must be addressed to the Bank at the following address:

South Bangla Agriculture & Commerce Bank Ltd.
Information Technology Division
Head Office (Level -10)
SunMoonStar Tower,
37, Dilkusha C/A, Dhaka-1000.

If you have any questions or require any additional information, please do not hesitate to contact us.

Md. Mizanur Rahman
Senior Vice President

Md. Shawkat Ali
Deputy Managing Director