

BANK OF GHANA

REQUEST FOR EXPRESSION OF INTEREST. **NATIONAL SWITCH AND SMART CARD** **FOR ELECTRONIC TRANSACTIONS** **(INTERNATIONAL COMPETITIVE TENDERING (ICT))**

The Bank of Ghana in collaboration with the banks, has decided to facilitate the introduction of a National Electronic Payments System (NEPS) in Ghana. This is to ensure the delivery of financial services to the un-banked, under-banked and banked segments of the population.

As part of the development of the NEPS, the Bank of Ghana, would like to put in place:

1. A domestic Switch to provide a fully integrated payment switching and settlement system for all banks. The Switch would also be suitable for multiple applications and services, meeting the requirements of the banked and the un-banked.
2. A smart card (based on biometric identification) payment system, which is compatible with the domestic Switch and that, can be used nationally.

A. THE NATIONAL SWITCH

The switch shall meet international standards and have the following major functions:

- i. manage the operation of an integrated and interoperable national ATM system including the switching and settling of ATM transactions on behalf of member banks;
- ii. manage the switching and settling of Electronic Funds Transfer at Point of Sale transactions for member banks;
- iii. have SMS technology for mobile phone banking and support mobile phone top up service;
- iv. enable WEB and Internet based transactions;
- v. provide varied card authentication options including signature, PIN and biometric methods such as finger print;
- vi. have interface with international card schemes such as VISA, MasterCard, Europay, Diners, American Express etc. and be able to settle transactions with local and international issuers and acquirers;
- vii. be compatible with existing ATM/POS hosts and other banking applications in Ghana;
- viii. have built-in mechanisms that ensure dual electronic audit trails, automatic recovery, transaction cancellation, transaction reconciliation, refunds and cash back;
- ix. compliant with EMV standards including security and processing schemes;
- x. support ISO 8583 message standards or equivalent to enable interface with other payment systems;
- xi. operate on 24 hours per day, 7 days per week non-stop/ continuous mode
- xii. incorporate online fraud detection system to monitor card transactions
- xiii. provide option for linking to a vendor-supplied or international branded Card Management System for the installation at card issuing and card acquiring banks

B. THE SMART CARD

The smart card payment system, which shall incorporate biometric identification, shall in addition to being used for ATM and EFTPOS transactions through the switch, support the following functions nationwide:

- i. payment for goods and services offline at merchant outlets, mass transportation (e.g. bus, taxi), school/universities, government agency offices, hospitals
- ii. buying of prepaid telephone, water, electricity and other utility vouchers
- iii. transfer of funds to other cardholders, bank accounts or other third parties
- iv. secure short term loan facilities
- v. collect third party payments
- vi. receive funds from third parties
- vii. saving money and earning interest on the credit balance of the savings wallet card
- viii. link to cardholder bank accounts to use as ATM card, debit card, credit card
- ix. Card supports both contact-less operation as well as standard landing contact with card reader/writer devices.
- x. Interoperable with mobile phones such as transferring funds to/from smart cards by using mobile phone and/or SMS services
- xi. adopt Multi-application Chip Card (MCC) technology which allows incorporating other functions in addition to payment function, such as student pass, medical history, credit history
- xii. Smart Card system should include terminal devices such as card reader/writers, add-value machines in different forms e.g. portable, kiosk type.
- xiii. Devices should support operation in online/offline mode with minimal electricity required, and support both mobile and fixed line secure telecommunication with the Switch and Card Clearing System

C. EXPRESSION OF INTEREST

- i. The Bank seeks a supplier(s) to build and operate the domestic switch and/or the smart card payment system in partnership with the banking system.
- ii. The response, shall demonstrate the supplier(s)' track record, experience in the establishment and operation of switches for the transactions referred to above and/or smart card payment systems with the functions stated above, the qualification and competence of personnel available for the assignment, the work plan and the approach to the work.
- iii. In addition to proposing approach to work, supplier's responses should also include the supplier's **pricing policy and cost estimates** for National Switch and/or Smart Card System. Cost estimates should be broken down in details to include:
 - quotes for different hardware models
 - software licenses for different ranges of users
 - unit costs for terminal device and card
 - One-time cost and recurrent cost should be describedBallpark estimates for implementation services such as training, support services should be provided if available.
- iv. The main objective of this exercise is to select credible, competent, reliable and financially sound suppliers to submit tenders for these infrastructures. Interested companies must meet the minimum criteria below:

- Have a minimum of five years operational experience in electronic payments switching and/or smart card payments
 - Have an operational switch linking 100 or more ATMs/EFTPOS service points, which they have built and are either supporting or operating and/or currently operate or support a smart card payment system.
 - Have the capacity to provide banks with the ability to offer fully hosted card issuer services.
 - Have the financial capacity and commitment to invest in the project.
 - Submit the most recent three years audited financial statements.
- v. Firms may bid for one or both projects. Only short listed companies shall be invited to purchase the tender documents, which follow the guidelines of the International Competitive Tendering procedures specified in the Public Procurement Act, 2003 of the Republic of Ghana.
- vi. Responses to this expression of interest must be submitted in envelopes, which are boldly labelled “EXPRESSION OF INTEREST-DOMESTIC SWITCH AND SMART CARD PROJECT” The envelopes must be addressed to:
- The Secretary,
Bank of Ghana, Head Office
One Thorpe Road
P.O. Box 2674
Accra. Ghana.
- vii. Responses must be received by **October 13, 2006**. Responses sent by post must be registered. All late responses will be rejected. The BOG shall not be responsible for the non-receipt of responses.
- viii. Interested companies may obtain further information from:
- The Director, Banking Department
Bank of Ghana Head Office, Accra
P.O. Box 2674, Accra. Ghana.
Tel. 664523/660841 Email: mnarh@bog.gov.gh