



# **BANK OF GHANA**

## **Guideline on Operations Of Electronic Payment Channels In Ghana**

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## **Preamble**

The Bank under Section 4 (e) of the Bank of Ghana Act, 2002 (Act 612), Section 18 1(f) of the Banks and Specialised Deposit-Taking Institutions Act, 2016 (Act 930) and Section 99 2(b) of the Payment Systems and Services Act (2018) hereby issues Guideline on Operations of Electronic Payment Channels. The purpose of this Guideline is to provide a framework for the management of an efficient and secure transmission of electronic transactions across various payment channels.

This Guideline supersedes earlier directives on the operations of platforms for Automated Teller Machines and Point of Sale Systems in Ghana, in **NOTICE NO.BG/GOV/SEC/2006/6** and other directives related to Payment Channels.

## **Application of this Guideline**

**1.0** This Guideline applies to:

- a) a bank,
- b) a specialised deposit-taking institution,
- c) a dedicated electronic money issuer,
- d) a payment service provider,
- e) an affiliate of a bank, a specialised deposit-taking institution or a financial holding company, and
- f) an agent of a bank, a specialised deposit-taking institution, a dedicated electronic money issuer or a payment service provider.

## **Standards on Automated Teller Machine Technology and Specification:**

**1.1** (1) An Automated Teller Machine deployer or acquirer shall comply with the latest version of Payment Card Industry Data Security Standards

(2) An Automated Teller Machine shall dispense denominations of Ghana Cedi.

(3) A deposit-taking Automated Teller Machine shall display acceptable denominations.

(4) A terminal shall be levels 1 and 2 Europay Mastercard and Visa compliant at a minimum, and shall be upgraded from time to time, to comply with the latest version, within twelve (12) months of release of the version.

(5) An Automated Teller Machine shall have an audit trail and log capability to facilitate investigation, reconciliation and dispute resolution.

(6) A card reader shall be identified by a symbol that:

- i) represents the card;

ii) identifies the direction for which the card should be inserted into the reader

(7) An Automated Teller Machine deployed shall have tactile graphic symbol and voice activation for the use of a visually impaired customer.

(8) The location of an Automated Teller Machine shall be visibly publicized on a deployer's website within three (3) months of passage of this Guideline and updated quarterly.

### **Automated Teller Machine deployment**

**1.2** (1) A bank, a specialised deposit-taking institution and an independent Automated Teller Machine deployer may own an Automated Teller Machine.

(2) The institutions in paragraph (a) shall enter into an agreement with a card scheme or a scheme operator or designated settlement institution for acceptance and settlement of a transaction at the Automated Teller Machine.

(3) An Automated Teller Machine transaction shall be processed by a Ghanaian company operating in Ghana as a processor within two (2) years of passage of this Guideline.

(4) A card or payment scheme shall not compel any issuer or acquirer to send any transaction outside Ghana for the purpose of processing, authorization or switching.

(5) A card issued by an authorised or licensed institution and used at an Automated Teller Machine shall be routed and settled under a domestic arrangement.

(6) Collateral for a settlement transaction shall be in Ghana Cedi and deposited in Ghana within three (3) months of passage of this Guideline.

(7) A card scheme shall not discriminate against an Automated Teller Machine acquirer.

(8) An Automated Teller Machine acquirer shall not discriminate against any card scheme or issuer.

(9) A card scheme shall publish the requirements for acquiring Automated Teller Machine transactions under the card scheme.

(10) An Automated Teller Machine shall be situated to permit access.

(11) A deployer of an Automated Teller Machine shall provide lighting.

(12) An Automated Teller Machine shall be sited to prevent reflected sunlight or other bright lighting from striking the display.

(13) A privacy filter shall be enabled by the deployer.

(14) An acquirer shall offer account selection for the following:

- i. Savings account
- ii. Current account
- iii. Credit card account

(15) An Automated Teller Machine acquirer shall transmit the account selected by the customer in (14) to the issuer. A default shall apply when there is no account selection.

(16) An Automated Teller Machine shall be able to process cardless transaction.

### **Automated Teller Machine Operations**

**1.3** A bank, a specialised deposit-taking institution and an independent Automated Teller Machine deployer shall ensure that:

- a) an Automated Teller Machine downtime shall not be more than seventy-two (72) hours and when it is not rectified, the deployer shall display a notice at the terminal.
- b) a helpdesk contact shall be displayed at the Automated Teller Machine terminal.
- c) a functional toll free line shall be dedicated for fault reporting.

- d) an Automated Teller Machine shall disclose fees and charges to a customer prior to completion of a transaction within six (6) months of passage of this Guideline.
- e) an Automated Teller Machine shall issue a receipt upon request by a customer for a transaction.
- f) cash retraction and partial cash dispensing shall be disabled on all Automated Teller Machines within three (3) months of passage of this Guideline.
- g) an issuer shall reconcile and refund all funds belonging to a customer as a result of an Automated Teller Machine's non-dispense error within five (5) working days for off-us and within twenty-four (24) hours for on-us transactions.
- h) a monitoring mechanism shall be put in place to detect and prompt Automated Teller Machine failure.
- i) an online monitoring mechanism shall determine Automated Teller Machine vault cash level.
- j) an Automated Teller Machine vault replenishment shall be carried out daily.
- k) an Automated Teller Machine shall not be stocked with unfit notes.
- l) an Automated Teller Machine deployed by a non-bank institution shall be funded by the sponsoring institution that entered into the agreement.
- m) a Service Level Agreement between the sponsoring institution and the non-bank institution shall specify the obligations of each party.
- n) a change of Personal Identification Number shall be provided to customers free of charge.
- o) an Automated Teller Machine deployer shall monitor and report suspicious transactions to Bank of Ghana and Financial Intelligence Centre.
- p) a back-up power shall be made available at an Automated Teller Machine location.
- q) a redundant network backup infrastructure shall be provided
- r) a paper in-hole bin shall be provided at an Automated Teller Machine location.



- s) a card based transaction shall be completed within thirty (30) seconds and non-card based within fifteen (15) seconds.
- t) an Automated Teller Machine shall not display information that can be used to construct a usable card.
- u) a message or a voice prompt shall alert a customer to remove card out of the Automated Teller Machine before cash is dispensed.
- v) an Automated Teller Machine shall be configured to request for a Personal Identification Number or identification for every transaction.

### **Automated Teller Machine Maintenance**

**1.4** A bank, a specialised deposit-taking institution and an independent Automated Teller Machine deployer shall ensure that:

- a) a notice is displayed at the Automated Teller Machine for planned maintenance period and disruption to service at least one (1) month prior to maintenance.
- b) an Automated Teller Machine maintenance register or log is kept.
- c) an Automated Teller Machine and cash in the machine are insured.
- d) an Automated Teller Machine is physically inspected.

### **Automated Teller Machine Security**

**1.5** (1) An Automated Teller Machine shall have a camera and record a person using the machine and kept for not less than three (3) months.

(2) A camera shall not record the key strokes of a customer using an Automated Teller Machine.

(3) A surveillance camera shall not be conspicuous.

(4) A network used for the transmission of Automated Teller Machine transaction shall have data confidentiality and integrity

(5) An Automated Teller Machine deployer shall prevent network intrusion.

(6) An Automated Teller Machine shall abort a transaction where a user's image is blocked.

(7) An Automated Teller Machine deployer shall install Anti-Skimming device.

(8) An acquirer shall protect a customer's Personal Identification Number, accept and transmit online Personal Identification Number with a length of four (4) to Six (6) digits.

### **Regulatory Monitoring**

**1.6** (1) A register of an Automated Teller Machine with location, Global Positioning System, identification, serial number, brand of a machine shall be submitted to the Bank on quarterly basis.

(2) An acquirer who decommissions or relocates an Automated Teller Machine shall notify the Bank.

(3) The Bank may conduct onsite checks of Automated Teller Machine.

(4) An acquirer shall report volume and value of transactions on monthly basis to the Bank.

(5) An acquirer shall submit a report on service downtime or service interruption to the Bank.

## **POINT OF SALE AND MOBILE POINT OF SALE ACCEPTANCE SERVICES**

### **Point of Sale and mobile Point of Sale Acceptance Services Stakeholders**

**2.0** Point of Sale and mobile Point of Sale Acceptance Service stakeholders include the following:

- a) Acquirer
- b) Card Issuer
- c) Merchant
- d) Cardholder
- e) Card Scheme
- f) Switch
- g) Payment Terminal Service Aggregator
- h) Payment Terminal Service Provider
- i) Non-card Scheme, and
- j) Any other institution authorised or licensed by the Bank

### **Minimum Standards for Point of Sale and mobile Point of Sale Devices**

**2.1** (1) An industry stakeholder processing, storing and transmitting customer information, shall comply with the following standards:

- i) Payment Application Data Security Standard
- ii) Payment Card Industry PIN Entry Device
- iii) Payment Card Industry Data Security Standard
- iv) Europay Mastercard Visa, and
- v) Any other relevant standards that the Bank may prescribe.

(2) A terminal, application and processing system, shall comply with the standards specified by the various card schemes.

(3) A vendor shall provide a valid certificate in compliance with standards stipulated in paragraph (1)

(4) A vendor shall annually review status of a terminal in line with existing standards.

(5) A vendor or a deployer shall undertake review and recertification in line with the standards stipulated in paragraph (1).

## **Roles and Responsibilities**

### **Acquirer**

**2.2** (1) A person shall not serve as an Acquirer unless licensed or authorised by the Bank

(2) An Acquirer shall:

a) deploy and support Point of Sale and mobile Point of Sale terminals through a licensed or authorised Payment Terminal Service Provider.

b) ensure that Point of Sale and mobile Point of Sale terminals purchased and deployed at a merchant location shall accept a card and a Near Field Communication enabled device.

c) enter into an agreement with a Merchant to accept payment by means of an electronic payment instrument.

d) spell out the terms and conditions of the Acquirer, the Merchant and Payment Terminal Service Provider.

e) connect a Point of Sale, mobile Point of Sale terminal or other acquiring device directly to a Payment Terminal Service Aggregator

f) switch a domestic transaction through a switch for authorization from the Issuer and shall not be routed outside Ghana within two (2) years of the passage of this Guideline.

g) conduct Know Your Customer requirements on a merchant.

h) set merchant limits based on the volume of business and type of commercial activity.

i) provide guidelines to a merchant on payment procedures for a transaction.

j) maintain and reconcile a merchant account on behalf of the Merchant.

(3) Point of Sale and mobile Point of Sale terminals shall accept a card issued by a person authorised or licensed by the Bank and certified international scheme cards.

(4) An Acquirer and Payment Terminal Service Provider shall be responsible for the training of a merchant.

### **Mobile Point of Sale Acquirer**

**2.3** (1) An Acquirer shall:

a) not acquire a transaction through a mobile Point of Sale for a merchant that fails to meet Acquirer's standards.

b) provide a patch and a version control management for the mobile application.

c) implement an enterprise mobility management system for the mobile Point of Sale devices.

d) transmit payment data through a secured communication channel and protocol.

e) educate a merchant on the standard operating procedures.

f) issue receipt either in electronic or paper form upon completion of a transaction.

g) lockdown the payment application to prevent other mobile applications on the device of a Merchant from interacting, storing or transmitting payment data.

(2) An Acquirer and a Merchant shall maintain the card reader.

### **Payment Terminal Service Provider**

**2.4** (1) A Bank of Ghana licensed Payment Terminal Service Provider shall deploy, maintain and provide support for Point Of Sale and mobile Point of Sale terminals.

(2) The Bank shall provide criteria for the performance of licensed Payment Terminal Service Providers which shall be reviewed annually.

(3) A Payment Terminal Service Provider or authorised institution may identify Merchant opportunity and market potential Merchant on behalf of an Acquirer.

(4) A Payment Terminal Service Provider shall enter into a Service Level Agreement on deployment timelines with an Acquirer.

(5) A Payment Terminal Service Provider or authorised institution shall deploy functional Point of Sale terminals at all times.

(6) A Payment Terminal Service Provider or authorised institution shall put in place mechanisms to remotely detect failures and rectify within 48 hours.

(7) A sticker with support service contact information shall be displayed on a terminal deployed by a Payment Terminal Service Provider or authorised institution.

(8) A Payment Terminal Service Provider or authorised institution shall enter into a Service Level Agreement with an Acquirer.

(9) A Payment Terminal Service Provider or authorised institution shall meet the required certification and minimum specification.

(10) A Payment Terminal Service Provider or authorised institution shall phase out, replace and upgrade terminals when certification is obsolete.

### **Payment Terminal Service Aggregator**

**2.5** (1) The National Central Switch shall act as the Payment Terminal Service Aggregator for the financial system

(2) The Bank shall publish the minimum specification for a Point of Sale and mobile Point of Sale terminals.

(3) An approved Point of Sale and mobile Point of Sale terminals shall be connected to the Payment Terminal Service Aggregator.

(4) The National Central Switch shall provide Acquirer, Payment Terminal Service Provider and Merchant the ability to view transactions and monitor performance of devices.

(5) Point of Sale and mobile Point of Sale Terminals shall accept all approved cards.

(6) The National Central Switch shall route all transactions from Point of Sale and mobile Point of Sale terminals to an Acquirer or a designated third party processor.

(7) A domestic transaction shall be switched using a local switch.

(8) The National Central Switch shall:

i) monitor the availability and transaction traffic on Point of Sale and mobile Point of Sale terminals.

ii) provide analysis and reporting on Point of Sale and mobile Point of Sale terminals performance and transaction trend to the Bank of Ghana monthly.

iii) settle Merchant and other party's transactions within the T+1 upon receipt of settlement file from card schemes or switches.

(9) The National Central Switch shall be liable to refund the entire Merchant Service Charge for failure to transfer a settlement file.

## **Merchant**

**2.6** (1) A Merchant shall:

a) enter into an agreement with an Acquirer, specifying the obligations of each party.

- b) accept card and other payment token as a method of payment for goods and services.
- c) be held liable for a fraudulent activity or negligence.
- d) under no circumstance charge a different price, surcharge a cardholder or discriminate against any member of the public who chooses to pay with a card or by other electronic means.
- e) comply with the minimum security guidance provided by the Acquirer.
- f) be responsible for restricting physical and logical access to the Point of Sale and mobile Point of Sale devices.
- g) display the amount to be authorised on the screen prior to requesting Personal Identification Number entry.

## **Cardholder**

### **2.7 (1) A cardholder shall:**

- a) store the payment card and protect the Personal Identification Number with due care
- b) not keep the payment card together with the Personal Identification Number
- c) notify the issuer immediately about missing, stolen, damaged, lost or destroyed card
- d) present a form of identification when required by a merchant.
- e) bear liability for a loss arising from misuse of the Personal Identification Number or the card.
- f) be entitled to receive a receipt, or any other form of evidence at the time a transaction is performed.
- g) be entitled to receive a monthly statement of all transactions performed.
- h) be given a minimum of thirty (30) days' notice before changes are made to the terms and conditions of a card contract and shall be given the option to opt out of the contract, without penalty.



(2) A cardholder may withdraw from a contract for payment card without prior notice to the issuer provided there is no pending charge or transaction on the payment card.

(3) An issuer shall investigate and resolve a claim within T + 7 days when notified by a cardholder that an error involving the card has occurred.

### **Prohibited Activities for Card Schemes**

**2.8** (1) A card scheme shall be bound by this Guideline and other relevant Bank of Ghana Guidelines, Notices and Circulars.

(2) A Card Scheme shall not engage in the business of acquiring.

(3) A Card Scheme, subsidiary or an entity with a significant shareholding of a 20% or more shall not engage in the business of merchant acquiring.

(4) A Card Scheme shall not engage in an act that contravenes Unfair Competition Act, 2000 (Act 589).

(5) An arrangement or collusion between two or more Card Schemes, or Payment Schemes in respect of Issuing, Acquiring, Processing or Switching shall not be allowed.

### **Switching Company**

**2.9** (1) The National Central Switch or other authorised or licensed switch shall route transaction relating to a card between an Acquirer and an Issuer.

(2) A switching company shall have an open network for reciprocal exchange of transactions with the National Central Switch or authorised switch.

### **Settlement Mechanism**

**2.10** (1) A merchant account for domestic transaction shall be settled on T+1 basis.

(2) A card scheme or the appointed switch shall provide a settlement file to the settlement institution daily by 12:00 hours.

(3) A settlement file shall contain sufficient details for settlement at the Bank.

(4) A card scheme or a switch that fails to provide information in the required format or by the required timeline shall be liable to a penalty as prescribed under the Payment Systems and Services Act, 2018.

### **Fees and Charges**

**2.11** (1) Fees and charges for Point of Sale and mobile Point of Sale acceptance service shall be agreed among a service provider, bank and entity subject to the following limits:

- a) the maximum total fee a merchant is charged for a Point of Sale and mobile Point of Sale transaction shall be subject to negotiation between the acquirer and the merchant after taking into account the provisions of the Interchange Guideline.
- b) the fees and charges stated in paragraph (i) shall be applicable to only Point of Sale and mobile Point of Sale transactions performed with Ghana Cedi denominated cards and locally issued cards denominated in foreign currency.
- c) Point of Sale and mobile Point of Sale transactions done with international issued cards shall follow the pricing arrangement put in place by the international card scheme.

### **Exclusivity Agreement**

**2.12** (1) There shall be no form of exclusivity in any area of payment service including, but not limited to Issuing, Acquiring, Processing, Sale and Maintenance of hardware and software.

(2) A payment scheme, operator, processor, infrastructure provider, switching company, service provider or bank that contravenes this Guideline shall be suspended for a minimum of one (1) month by the Bank as a Payment Service Provider in the first instance followed by revocation of license or authorisation when the violation persists.

## Minimum Point of Sale Terminal Specifications

**2.13** (1) Table 1 provides the minimum Europay Mastercard and Visa specification for Point of Sale device.

**Table 1:** Europay Mastercard and Visa specification

| <b>Parameters</b>               | <b>Specifications</b>  |
|---------------------------------|--|
| Card Readers                    | EMV Chip/Smart cards, Magnetic stripe. Optional: Contactless           |
|                                 | reader,2 SIM Slots   |
| Communications                  | GPRS, Ethernet, Dial-up Modem. Optional: CDMA, Wi-Fi, GPS              |
| Certifications                  | EMV levels 1 & 2, PCI DSS, PA-DSS, PCI PED online & offline (All       |
|                                 | PCI certifications should be the Latest Version)                       |
| CPU                             | ARM9/11, 32Bits. Optional: Dual processors                             |
| Memory                          | 16MB Flash, 32MB SDRAM   |
| Keypad                          | PCI PED Approved, Backlit  |
| Display                         | TFT LCD graphics, 128/64 pixel, Backlit. Optional: Colour screen       |
| Power                           | 100-240V, 50-60Hz; 24hrs backup battery power (operating)<br>Optional: |
|                                 | DC support, Car jack charger, Docking fast charger, solar charger      |
| Printer                         | 15 -18 lines per sec Thermal printer                                   |
| Multi-Application               | Supports Multiple Applications   |
| Customization / Others Security | Optional: Coloured or branded housing, Labelling/embossing,            |
|                                 | RS232 & USB interfaces, Protocol implementation                        |
|                                 | Online and offline PCI PTS 3.1   |

## Minimum Point of Sale Terminal Specification-Biometric

**2.14** (1) Table 2 provides the minimum Biometric specification for Point of Sale device.

**Table 2:** Biometric Point of Sale Specification

| <b>Parameters</b>               | <b>Specifications</b>  |
|---------------------------------|--|
| Card Readers                    | EMV Chip/Smart cards, Magnetic stripe. Optional: Contactless           |
|                                 | reader,2 SIM Slots   |
| Communications                  | GPRS, Ethernet, Dial-up Modem. Optional: CDMA, Wi-Fi, GPS              |
| Certifications                  | EMV levels 1 & 2, PCI DSS, PA-DSS, PCI PED online & offline (All       |
|                                 | PCI certifications should be the Latest Version)                       |
| CPU                             | ARM9/11, 32Bits. Optional: Dual processors                             |
| Memory                          | 16MB Flash, 32MB SDRAM   |
| Keypad                          | PCI PED Approved, Backlit  |
| Display                         | TFT LCD graphics, 128/64 pixel, Backlit. Optional: Colour screen       |
| Power                           | 100-240V, 50-60Hz; 24hrs backup battery power (operating)<br>Optional: |
|                                 | DC support, Car jack charger, Docking fast charger, solar charger      |
| Printer                         | 15 -18 lines per sec Thermal printer                                   |
| Multi-Application               | Supports Multiple Applications   |
| Customization / Others Security | Optional: Coloured or branded housing, Labelling/embossing,            |
|                                 | RS232 & USB interfaces, Protocol implementation                        |
|                                 | Online and offline PCI PTS 3.1   |
| Fingerprint module              | Morpho CBM, Morpho CBM-E   |

## Minimum mobile Point Of Sale Technical Specification

**2.15** (1) Table 3 provides the minimum mobile Point of Sale Technical Specification.

**Table 3:** mobile Point of Sale Specification

| <b>ITEM</b>         | <b>Specification Note</b>                           |
|---------------------|---|
| CPU                 | MAX32550 ARM® Cortex® M3 Processor                  |
| Operating frequency | Run at 108 MHz                                      |
| Working Memory      | Internal SRAM: 256Kbyte 8KB AES Self-Encrypted SRAM |
| Program Memory      | Flash, 1Mbyte                                       |
| OS                  | None  |
| Communication       | USB   |
| Serial Comm.        | Keypad, Contact EMV                                 |
| Contact EMV L1      | Protocol:T=0,T=1/ class A,B,C (5V, 3V, 1.8V)        |
| RF EMV L1           | NXP RF IC, NFC, ISO14443                            |
| DISPLAY             | 128x64 OLED (0.96inch)                              |
| KeyPad              | 12EA  |
| MSR                 | Module  |
| Operating Powers    | 3.3V, 5V  |

## **WEB ACCEPTANCE SERVICE**

### **Scope**

**3.1** A web acceptance service includes transfer of monetary value on a website of a Merchant or a Payment Service Provider

### **Minimum Standard**

**3.2** A web acquirer shall utilize the services of an authorised or licensed gateway provider that comply with the following minimum standards:

- a) Payment Card Industry Data Security Standard
- b) Payment Application Data Security Standard
- c) 2-Factor Authentication

### **Stakeholder**

**3.3** A Web Acceptance Service stakeholder shall include, but not limited to:

- a) Acquirer
- b) Issuer
- c) Merchant
- d) Merchant Aggregator
- e) Payment Gateway Provider
- f) Customer

## **Roles and Responsibilities**

### **Acquirer**

**3.3.1** (1) An acquirer shall carry out the following responsibilities:

- a) observe the requirements under paragraph 2.2 (2) in addition to extant guidelines.
- b) engage and manage the web Payment Gateway Provider.
- c) evaluate the merchant web portal, web application and control environment.

- d) ensure a Merchant carry out regular threat scan on website and provide update on emerging threats.
- e) test website payment integration
- f) ensure that sensitive customer data is not stored on a Merchant's website.
- g) comply with scheme rules as defined by the various card schemes and where there is conflict this Guideline supersedes.
- h) assist the Merchant in setting up an account in the bank and any back-end processing for settlement of a payment.
- i) acquire a transaction done on a website of Merchant.
- j) sign an agreement with a Merchant for payment acceptance.
- k) perform Customer Know Your Customer and Customer Due Diligence.
- l) maintain and reconcile a Merchant account.
- m) discontinue the service on grounds of fraud or breach of contract
- n) implement a fraud management system.
- o) profile a Merchant and define transaction limits.
- p) have both test and live environment.

### **Merchant**

**3.3.2** (1) A merchant shall carry out the following responsibilities:

- a) observe the requirements under paragraph 2.6 (1) in addition to extant guidelines.
- b) display terms and conditions for products and services on the website.
- c) cooperate with the Acquirer in implementing security measures.
- d) provide customer with instructions on the process for making payment.

e) provide information to a customer on the applicable charges.

f) carry out threat scan.

### **Issuer**

**3.3.3** (1) A bank or specialised deposit-taking institution shall serve as issuer of payment card.

(2) An Issuer shall perform the following responsibilities:

a) issuance of cards and virtual accounts.

b) authorize a customer transaction.

c) provide security measures.

d) provide means through which a customer can notify the issuer of a loss, theft or fraudulent use of a card.

e) maintain internal records over a minimum period of six (6) years.

f) set overall transaction limits per channel per day.

g) acknowledge the dispute or complaints from a customer within 24hours.

h) resolve dispute or complaint within T + 7 days.

i) furnish a customer with a list of a contractual term and condition before an account is activated

j) implement behavioural monitoring, Short Message Service and email alerts as controls.,

k) enable card for web transaction upon request.

(3) An Issuer shall be liable for payment made with a hot listed card, expired card and wrong Card Verification Value.



## **Payment Gateway Provider**

**3.3.4** A Payment Gateway Provider shall:

- a) process online payment transaction.
- b) act as facilitator on behalf of a customer to enable payment transaction.
- c) be responsible for payment data security.
- d) not store customer details on a server maintained by either a Payment Gateway Provider or a third party without a security audit undertaken by a Qualified Security Assessor.

## **Card and Virtual account holder**

**3.3.5** (1) A card and virtual account holder shall:

- a) store payment information and protect the Personal Identification Number
- b) not keep a payment information together with the Personal Identification Number
- c) notify an Issuer immediately of missing, stolen, damaged, lost or destroyed payment information
- d) not make a payment information available to an unauthorized person.

(2) A customer shall bear liability for loss arising from misuse of a Personal Identification Number or payment information.

(3) A customer shall receive a receipt or a form of evidence when a transaction is performed.

(4) An Issuer shall investigate and resolve a claim within T + 7 days when notified by the customer that an error has occurred.

## **Settlement Mechanism**

**3.4** (1) A settlement for a Web transaction shall be made to a Merchant account on a T+1 basis.

(2) An Acquirer shall settle funds to a Merchant account.

## **Fees**

**3.5** (1) Fees shall be based on Bank of Ghana Interchange Guideline.

(2) Fees and charges are to be agreed between a service provider and a bank or an entity subject to the following limits:

a) A maximum total fee a Merchant shall be charged for a Web transaction shall be subject to negotiation among Payment Gateway Provider, the Acquirer and the Merchant in line with the Interchange Guideline.

(3) A Web transaction done with a payment instrument issued in foreign currency will follow the pricing arrangement put in place by the international scheme.

## **FRAUD MANAGEMENT**

**4.0** National Central Switch shall establish a minimum standard for fraud detection, prevention and management for payment channels which shall be complied with by all stakeholders.

## **COMPLIANCE**

**5.0** A Payment Service Provider shall comply with the provisions of this Guideline and other Guidelines issued by the Bank. This Guideline shall prevail, in case of a conflict with any prior Guidelines.

## **DISPUTE RESOLUTION**

### **Issuer Process**

**6.0** (1) An aggrieved customer shall lodge a complaint with an issuer for wrongful debit of an unsuccessful transaction.

(2) An Issuer shall request for details of the alleged incomplete transaction from the customer.

(3) The following minimum information on the aggrieved customer shall be captured:

- i. Name of Issuer or bank;
- ii. Name of customer;
- iii. Card Number or Wallet;
- iv. Date of transaction;
- v. Time of transaction;
- vi. Transaction amount;
- vii. Transaction reference;
- viii. Name of Acquirer;
- ix. Location;
- x. Transaction receipt (if available)

### **National Central Switch Process**

**6.1** (1) The National Central Switch shall verify the customer details from the Issuer to confirm the transaction.

(2) An issuer shall be informed when a request is rejected by the National Central Switch.

(3) A request shall be forwarded to an Acquirer for investigation and response when the National Central Switch confirms the details.

(4) An acquirer shall complete the appropriate section of the Chargeback portal when the request is rejected and provide counter evidence.

(5) The Chargeback Portal shall auto approve the request on behalf of the Acquirer for the full transaction amount and related fees when paragraph 5.1.3 is not responded to.

(6) An auto approved Chargeback cannot be revoked by an Acquirer.

### **Acquirer Process**

**6.2** (1) An Acquirer upon receipt of confirmed details from the National Central Switch shall investigate and respond within two (2) working days.

(2) An Acquirer shall accept the Chargeback and complete the Acquirer Response section of the Chargeback portal on the National Central Switch.

(3) An accepted Chargeback portal shall be redeemed through the National Central Switch

### **Chargeback Redemption**

**6.3** The National Central Switch shall transfer the file to the Bank for debit of the Acquirer's clearing account with the transaction amount and fee received and remit to the Issuer.

### **Limitation on Chargeback**

**6.3.1** A Chargeback request shall not apply to a transaction older than ninety (90) calendar days.

## **Chargeback Rebuttal**

**6.3.2** (1) An Acquirer may rebut a Chargeback where there is evidence that the transaction completed successfully at the terminal.

(2) A Chargeback rebuttal shall be accompanied by one or a combination of the following documentary evidence:

- (a) Switch level report
- (b) Picture and video evidence

## **Arbitration**

**6.4** (1) An Issuer may file a case for arbitration using the appropriate section of the Chargeback Portal when the Issuer remains dissatisfied with the rebuttal.

(2) The Bank shall constitute an arbitration panel to review the evidence presented by the parties.

## **Arbitration Procedure**

**6.4.1** (1) An Issuer may file a case for arbitration at the National Central Switch through the Chargeback portal where the Issuer remains dissatisfied with the rebuttal within five (5) working days of the Acquirer's rebuttal.

(2) The Bank shall constitute an arbitration panel to review the case within ten (10) working days after receipt of a formal request from the Issuer.

## **Arbitration Panel**

**6.4.2** (1) The arbitration panel shall be constituted of seven (7) arbitrators made up of:

- i) Bank of Ghana (3);
- ii) The National Central Switch (2);
- iii) Ghana Association of Bankers (2)

### **Arbitration Procedure**

**6.4.3** (1) The representatives of the Issuer and Acquirer shall present their cases to the panel and provide all available evidence.

(2) The panel shall review the presentations, evidence of the Issuer and Acquirer and record all proceedings.

(3) The arbitration shall be in line with the Alternative Dispute Resolution Act, 2010 (Act 798).

(4) The arbitration panel decision shall be deemed as final and binding on all parties to the dispute.

### **PENALTIES**

**7.0** Penalties shall be imposed in line with the Payment Systems and Services Act 2018 and the Banks and Specialised Deposit-taking Institution and Anti-money Laundering Act, 2008 (Act 749), as amended.

## **DEFINITION OF TERMS**

**8.0** In this Guideline, unless the context otherwise requires,

“Acquirer” means an entity that signs a merchant or disburses currency to a cardholder or customer in cash disbursement and directly or indirectly enters the resulting transaction receipt into interchange.

“Automated Teller Machine” means an unattended electronic device or equipment that enables an individual to undertake remote financial transactions

“Behaviourial Management” means analysis of payment data of a customer to establish patterns in payment behaviour.

“Card Reader” means a component of a payment device that reads data from a payment card.

“Card Scheme” means payment networks linked to payment cards such as debit or credit cards of which a financial institution or any other entity can become a member.

“Cardholder” means an individual or company issued with a payment card linked to an account at a licensed financial institution.

“Contactless” means a process of performing a transaction through a radio frequency identification enabled device.

“Europay, MasterCard, and Visa” means the global standard that ensures smart cards, terminals and other systems interoperate.

“Hot listed card” means list of deactivated cards by the issuer, that are reported missing, stolen, lost or damaged by the card holders.

“Interconnectivity” means ability for reciprocal exchange of transactions between two or more switching networks.

“Interoperability” means a seamless transfer of payment instructions or funds from the account of one payment service provider or user to the account of another payment service provider or user.

“Issuer” means an authorised financial institution or licensed entity that makes payment cards available to cardholders.

“Merchant” means a commercial establishment which enables a customer to pay for goods and services using payment instruments or electronic money;

“Mobile Point of Sale” means a smartphone, tablet or dedicated wireless device that performs the functions of an electronic point of sale terminal

“Near Field Communication” means the set of protocols that enable devices to establish radio communication with each other.

“National Central Switch” means a financial institution or any other person authorised by the Bank of Ghana mandated to manage electronic transfers.

“Payment Application Data Security Standard” means a global security standard created by the Payment Card Industry Security Standards Council to guide software vendors in the storage, processing or transmitting cardholder or sensitive authentication data

“Payment Card Industry Data Security Standards means a set of requirements to enhance cardholder data security and facilitate the broad adoption of consistent data security measures.

“Payment Card Industry PIN Entry Device” means a set of security requirements that are primarily concerned with device characteristics impacting the security of the PIN entry device used by the customer during a financial transaction.

“Payment Gateway” means an e-commerce application service provider that authorizes card payments for e-businesses and online retailers...

“Payment Information” means a card, wallet or token

“Payment Scheme” means a body that set the rules and technical standards for the execution of payment transactions.

“Payment Terminal Service Aggregator” means the National Central Switch



“Payment Terminal Service Provider” means entity licensed by the Bank of Ghana to offer payment terminal services.

“Payment Token” means any electronic payment instrument provided by an issuer to initiate a payment transaction.

“Processor” means is an entity that receives electronic message and ensures that it meets specific standards before it is transmitted.

“Quality Security Assessor” means an independent security person certified by the PCI Security Council to validate an entity’s adherence to PCI DSS requirements.

“Switching” means receiving payment instruction and routing to designated destination

“T” means transaction day.

“Virtual account” means an account that is a unique identifier of a customer’s physical account with a financial institution for payment.

“Virtual account holder” means an individual who has a virtual account with a licensed financial institution.

“Virtual Card” means randomly generated soft token by an issuer used for payment.

“Web Acceptance” means process of receiving payments through a web channel.

**BANK OF GHANA**

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