



Archie Hesse CEO, GhIPSS

MESSAGE FROM THE C.E.O.

Dear Partner,

Welcome to the second edition of "GhIPSS Update". We hope you enjoyed the first edition.

As part of efforts to provide our partners with reliable and trusted platforms, we embarked on a project to upgrade our core IT infrastructure. I am happy to announce the completion and successful migration to the new environment. We are confident these upgrades will improve the efficiency of our platforms and by extension, give your customers better transaction experience.

As promised, we successfully launched the gh-Dual card, which will provide the opportunity to cut down on cost of issuing two separate cards to the same customer. GhIPSS will continue to invest in the development of new products & services to meet the changing needs of the market. In the offing for the coming months, are the Proxy Pay service, Request to Pay and the universal QR Code for Ghana.

GhIPSS is looking forward to the new opportunities that lie ahead of the industry with the passage of the Payment Systems and Services Act. We hope that it will allow for diverse stakeholder involvement in the industry and will also guide the industry in developing an all inclusive financial

We are committed to delivering excellence to the industry and are confident we can make this relationship mutually rewarding.

We appreciate your continuous commitment to GhIPSS and our growth. We look forward to your feedback so we can continuously improve our services to you. We hope you enjoy this edition..

Thank you.

Archie Hesse

services sector.

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GHANA'S UNIVERSAL QR CODE SOLUTION (GHQR)



Global payment trends are fast gravitating toward the QR code technology, with many countries developing interoperable QR solutions instead of closed systems by different payment service providers. Countries like China, Singapore, India, Indonesia, Malaysia, Thailand among others have taken lead on the implementation of universal standards for their QR Code solutions. These countries have invested in universal standards that work for customers irrespective of their banks or e-wallet service providers; allowing for easy and quick ways of making cashless payments.

History has it that, QR codes were first invented in 1994 by a Japanese firm for use in the auto industry. The idea then, was to allow for faster and more accurate component scanning compared to existing barcode systems. Today, QR code technology has become a dominant force in the payment systems industry. A QR Code works by simply scanning a code with a mobile device that is equipped with a camera and QR Code reader application. They provide affordable, easy, and widely-adaptable solution to making payment at merchant locations. Customers can scan a code provided at a pay point and pay with their mobile devices in seconds. For their part, merchants get the benefits of accepting digital payments, without the up-front investment of buying a point of sale terminal. QR Code payment solutions are said to be fast, secure, and opens merchants' customer base to a wider segment of a country's population.

As important as this technology may be, Ghana cannot be said to be reaping the full benefits of this payment solution; as existing QR Code solutions are restricted to customers of the same service provider. Available QR solutions are all closed system solutions and do not allow for mass participation. There is currently no standardization. Meanwhile, in countries

where QR-enabled payment solutions are said to have displaced cash, there are clear cut industry standardization applicable to all players. This interoperable solution or standardization, solves the potential problem of payment counters being overcrowded with scores of various QR code signs and stickers.

In line with interoperable QR solution trends, GhIPSS is working on a universal QR Code solution; one that will bring the country up to speed with best practice and provide a cost effective alternative to payment receipts.

Ghana's QR Code solution will provide a standardized specification for interoperable payments across the country. The solution will provide a centralized switching service at GhIPSS for QR code payments by all participants. It will also have a USSD gateway for Merchant payments; enabling merchants to receive payments from various Consumer funding sources such as bank accounts, cards, mobile money wallets and electronic / virtual wallets. Ghana's solution will support both instant and card rails for payments. Merchants will receive payments by displaying a static QR Code generated by themselves or through an acquirer embedded with their details or by generating a QR code dynamically with every transaction using an electronic device. In addition to the QR codes, merchants shall have unique IDs assigned to them to facilitate receipts via USSD from customers who use feature phones.

Ghana's QR solution, when implemented, will reduce the cost of receiving or accepting electronic payments. It will also enable merchants to accept payments from different customer funding sources and provide a payment option that fits modern lifestyle: mobile phone dependence.

QR codes are a promising trend for the future of mobile payments, and are an exciting, easy and convenient way to transfer funds using a mobile phone. As a result, more countries are seeing QR code payments as a viable path to a cashlite economy. This technology puts the power of mobile payments in the hands of thousands of people who depend heavily on mobile phones. Ghana is set to take advantage of this technology, the success will depend on the collaboration of all partners in the payment systems industry.

HALF YEAR INDUSTRY PERFORMANCE

GhIPSS'2019 business strategy was to extend its digital product portfolio while promoting the adoption of existing products. Through the provision of Mobile money interoperability, GhIPSS laid the foundation for enabling Fintechs and Financial institutions extend their digital reach. By taking advantage of the Financial Inclusion Triangle, GhIPSS recorded significant growth in the use of its payment channels. In comparison to transactions done in the first half of 2018, the volume of transactions processed in 2019 increased by 32% from 12.2million transactions in 2018 to 16.1million transactions in 2019, but the value of transactions declined by -11.4% from GHC 117.2billion in 2018 to GHC 103.8billion in 2019. Clearing House and gh-link transactions declined both in value and volume. Although ACH Direct credit recorded some growth, Cheques and ACH Direct Debit transactions declined indicating a possible migration to ACH Direct Credit or other payment channels.

The restructuring of the banking sector (i.e. merger and consolidation of 16 banks into 5 banks and the declining performance of GN bank) accounted for the decline in gh-link transactions. In 2017 the total number of gh-link ATM and POS Issuer transactions performed in the first half of the year by the affected banks was about 500 thousand transactions, however in 2018 when the banking sector clean up began, gh-link issuer transactions in the first half of 2018 declined by 19% to about 400 thousand and by 2019 when the banking sector cleanup was completed, gh-link issuer transactions further declined by 47% to about 200 thousand. This decline is as a result of the reduced number of off-us transactions performed on gh-link terminals.

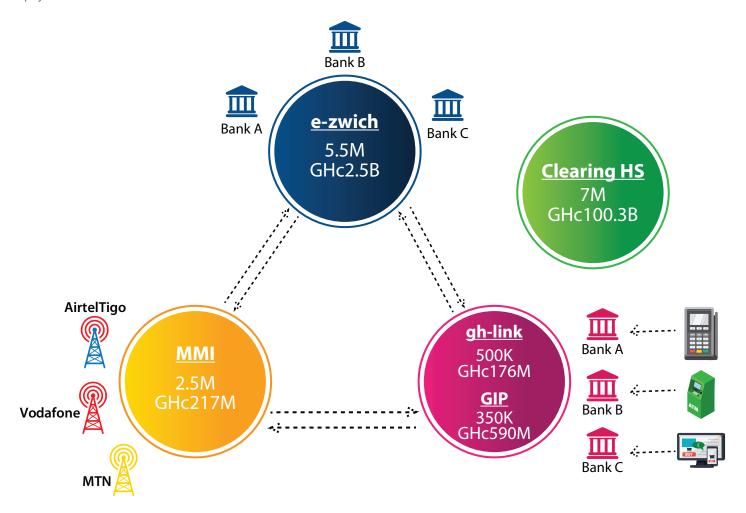


Figure 1: GhIPSS 2019 Half Year Summary Performance

GIP and MMI transactions however increased in both value and volume. Account to Account transfers accounted for 87% of GIP transaction value, while Account to Wallet transfers accounted for 69% of GIP transaction volume. The import of this difference is that users prefer moving high values into bank accounts as they have better KYC and no transaction limit, however users prefer sending small values into wallets as funds can be easily accessed at merchant locations. In the period under review, wallet to wallet transactions form the core of MMI transactions accounting for 86% of value and 97% of Volume.

The clearing house was the biggest contributor to GhIPSS product performance and accounted for 44% of transaction volumes in 2019, this is however a decline compared to 2018 when the clearing house accounted for 59% of transaction volumes.

2019 also recorded strong performance from the digital platforms, accounting for 56% of transaction volumes, e-zwich and MMI contributed 34% and 16% respectively to the total volume of transactions processed.

The performance of e-zwich was largely driven by growth in G2P payments. In the first half of 2019, G2P payments increased by 78% in value from GHC 559 million in 2018 to GHC 994 million in 2019, there was also a corresponding growth of 82% in volume from 1.3 million in 2018 to 2.5 million in 2019. e-zwich was the preferred digital payment channel for G2P payments, this assertion is because the e-zwich platform is the only digital payment channel that uniquely identifies beneficiaries there-by eliminating ghost names. Mobile money payments have also been adopted by consumers for P2P payments, this preference is because of the ease of moving and accessing funds on mobile money wallets.

G2P and P2P payments drive growth of Digital Platforms

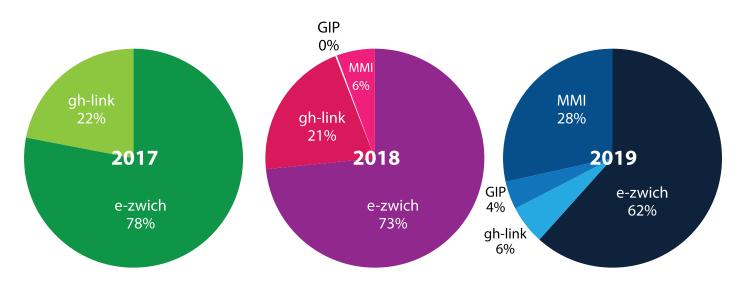


Figure 2: Comparative Growth of GhIPSS Digital Products: 2017 TO 2019

The 2019 performance is a strong indication of the future of digital payments in Ghana. By the end of 2019, GhIPSS would have fully upgraded its gh-link platform. This infrastructure upgrade is expected to improve the service quality for gh-link, GIP and MMI transactions. GhIPSS is also committed to expanding its digital product portfolio, to this end GhIPSS is developing three new payment products (QR Code, Request to pay service and Proxy Pay service) targeted at the corporate institutions and individuals. Additionally Government is committed to improving financial inclusion and digitizing its payment and collection processes. These initiatives by The Government of Ghana, GhIPSS and the financial services industry are set to propel the growth of this sector.



UPDATE ON PRODUCT INITIATIVE

Initiative	Product Description	Update on the Product Development
Gh Dual Card	A Gh Dual Card, is a two in one payment card, that has both the e-zwich & gh-link applications. It can be used either as an e-zwich or gh-link card or both as desired. Depending on the request of a customer, an issuing bank can activate any of the functionalities that serves a customer's purpose. The card has been designed to give cardholders access to both funds on their e-zwich cards and in their bank accounts at the same time.	The Gh Dual Card Application has been completed and launched. Banks can begin the processes leading to the production of cards: Stage 1: Banks will need to engage a GhIPSS certified card supplier for the card production arrangements Stage 2: Bank will then submit card design to GhIPSS for review & approval Stage 3: Banks will re-engage card supplier with the approved design from GhIPSS for production Stage 4: Cards to be submitted to GhIPSS for e-zwich personalization Stage 5: GhIPSS will submit cards after the e-zwich personalization to banks for the gh-link personalization
Proxy Pay	 Proxy service is an overlay service on GhIPSS Instant Pay This service allows a customer of a financial institution (Individual or Corporate) to register an alias / proxy identifier (phone number, e-mail address, nickname, or social media handle) to represent their bank account number. Payments made to the proxy identifier will be routed to the linked bank account in the domiciliary financial institution Proxy Identifier will be linked to a single account number in one financial institution only. (One-to-one mapping) Proxy service repository will be hosted on the gh-link infrastructure. Proxy service will expose an API to enable financial institutions to on board customers Payment to a proxy identifier will involve an initial name look up to confirm identity of beneficiary . 	Integration testing is currently in Progress. Communication on go-live details will be communicated to all partners in due course
Request to Pay (RTP)	RTP' is a bill payment service that enables a biller to request payment for goods purchased or service consumed by a customer. The payment request is accompanied with the bill details with options for the customer to approve payment / accept to pay or decline payment / decline to pay the bill. •'RTP' will leverage the GIP service to facilitate instant payments by payers to billers • Billers will send requests for payment via the RTP platform provided by GhIPSS by calling the RTP API • Payers will receive and respond to RTP requests from internet /mobile banking / mobile money • Notifications: With every RTP request sent to a customer, a Biller will send concurrently an email with a pdf copy of the bill or an SMS to the payer as notification for pending bill. Biller may send subsequent notifications to Payer if bill remains unpaid (Automated reminders) • Payment – Release of funds: Payer's funding institution will debit their source of funds and send the credit to the biller's receiving account (wherever it may be domiciled) instantly.	Integration testing is currently in Progress. Communication on go-live details will be communicated to all partners in due course



REQUEST TO PAY: THE NEXT BIG THING!



Request To Pay (RTP) is the new payment phenomenon enjoying a lot of interest across countries with modernised payment systems. Its burgeoning popularity stems from the fact that it serves multiple interests. It is one fantastic payment service that ensures real time cash flow for service providers (billers), create an incredible convenience for customers who get prompt alert and can make instant payment from the comfort of wherever they are. It also allow financial institutions to provide their customers with more user centred payment solutions.

RTP is one of the biggest sensations in payment system solutions worldwide and making significant inroads in countries where the solutions has been implemented: United Kingdom, US, Singapore, India, Malaysia and Argentina. Africa countries like South Africa and Nigeria also have RTP solutions. In Ghana, there exist similar solutions around the RTP concept based on the open banking model. However what GhIPSS is seeking to implement, is to utilise its existing Instant Pay platform to create a central RTP infrastructure. Experts suggest that RTP is a catalyst for innovation, and further iterations and developments are simply inevitable.

How does it work?

In its simplest terms, RTP refers to schemes that trigger payments from bank accounts following a request for payment sent from a biller to a customer. It is similar to Direct Debit. But in contrast with Direct Debits, RTPs are real time and suitable for single or ad hoc payments. They do not require a static upfront mandate from the payer and are not subject to extended rights of revocation. Payment requests can be sent via multiple channels and further forwarded by the payer through a variety of communication channels.

Its workings are simple. Instead of physically dispatching bills with the attendant challenges and costs, the bills are sent electronically to the customer with a prompt asking him or her to make payments. The customer follows the prompt and the payment is made accordingly. What is exciting is that the payment made, is instantly credited to the account of the biller. It will not take a day or two as in the case of Direct Debit.

Globally, there are two main RTP models; a Centralized Clearing system which is a standardized national infrastructure that provides connectivity to the banks and an Open Banking where each participating bank is accessible through Application Programming Interfaces. Ghana, has a robust national payment infrastructure and a centralized option will be ideal for the industry. The centralized option is also preferred because it prevents fragmentation within the payment ecosystem.

RTPs are commonly used for bills payment, but they can be tailored for other payments. In the case of Ghana, where government institutions are expected to go cashless by June 2020, the opportunity to apply RTP to a variety of customers, both corporate and retail, is endless.

Benefits of RTP

There is a strong business case for RTP because of the numerous benefits. It brings flexibility and convenience to payers, reduced cost for billers, as well as enhanced service with the attendance customer loyalty. Receiving prompt to pay is probably one of the strongest edge that RTP has over Direct Debit and other such payment options. RTP could also remove the long queues and the associated cost and chaos at payment points, as customers will now have the option to pay electronically without the need to ever step at a payment point. Revenue collection difficulties, pilfering and reconciliation challenges are everyday challenges that RTP can address.

RTP will introduce a new eco-system. It connects billers and payers (consumers and businesses). It also connects banks, either as the mechanism through which payments are made, or as the facilitator of the original request. Connecting these three parties enable potential exchange of additional information in the future. This could provide leads to new customers, new business opportunities and new financing opportunities for financial institutions.

The performance of the RTP in countries where it is being implemented is a clear testimony of its relevance to the modern financial system.



FAQ ON GH DUAL CARD



1. What is a Gh Dual Card?

A Gh Dual Card is a two in one payment card, that has both the e-zwich & gh-link applications. It therefore can be used either as e-zwich, gh-link or both as desired. Depending on the request of a customer, an issuing bank can activate any of the functionalities that serves a customer's purpose. The card has been designed to give cardholders access to both funds on their e-zwich cards and in their bank accounts at the same time.

2. Why a Gh Dual Card?

- Individuals: The Gh Dual Card eliminates the inconvenience that comes with carrying multiple Cards. Individuals who currently have both e-zwich & gh-link cards from their Financial Institutions can now opt for a Gh Dual Card. This will offer customers access to both funds on their e-zwich card & their bank account for which the Gh-link card was issued.
- Financial Institutions: Financial Institutions currently issue gh-link cards to customers who open accounts. At the same time, they provide e-zwich cards to customers who request e-zwich cards in addition to their gh-link cards. The Gh Dual card will provide Financial Institutions with an opportunity to cut down on cost of issuing two separate cards to the same customer; as they now have the option to issue a dual card that incorporates the functionalities of both gh-link & e-zwich cards.

3. How does the Gh Dual card work?

The Gh Dual card will work based on a customer's preference. Customers who want to withdraw money or spend off the e-zwich side of the card, will need an

e-zwich only terminal or a hybrid terminal. It will also require fingerprint authentication. Similarly, if the same customer wants to spend off their bank account, they will need a gh-link compliant terminal. The standard authentication of transactions for gh-link will apply. However, where there are Hybrid terminals (terminals with both e-zwich & gh-link applications), that can be used to perform both e-zwich & gh-link transactions at the same time.

4. How do I distinguish a Gh Dual card from others?

The Gh Dual card, will bear the details of the bank that issued the card as well as the gh-link and e-zwich logos.



An example of how the gh-link & e-zwich logos will be displayed on the card. A Gh Dual card will be branded in FI's colours like is done for all card



FAQ ON GH DUAL CARD

5. How different is the Gh Dual card from existing e-zwich only & gh-link only cards?

The Gh Dual card when issued by banks will function like the existing standalone cards. However, unlike the standalone cards, the dual card gives cardholders access to both funds on their e-zwich cards and in their bank accounts. Depending on a customer's requirement, a dual card can function as an e-zwich card or a gh-link card or both.

6. Will the Gh Dual card replace the existing gh-link & e-zwich cards?

The Gh Dual card is only an additional initiative but it will not replace the issuance of the existing gh-link & e-zwich cards. Depending on the needs of a customer, a bank may decide to issue an e-zwich only, a gh-link only or a Gh Dual card.

7. What are the Key features of the Gh Dual card?

a. Gh Dual cards can be issued by all Commercial banks, ARB Apex Banks and licensed Savings & Loans companies.

b. It will be accepted on all e-zwich and gh-link terminals (ATMs and POS) as well as Hybrid terminals (ATM & POS).

8. What are the various Gh Dual card Transaction Types?

The Gh Dual card supports the following transaction types

- **Purchase:** The card can be used by cardholders for any point of sale purchase across Merchant locations. The gh-link side can be used for online transactions locally.
- ATM Cash withdrawals: Gh Dual cardholders can withdraw cash from any e-zwich or gh-link ATM across the country.
- ATM PIN Change: PIN change services for authorizing gh-link transactions are available to cardholders across all ATMs.
- Balance Enquiry: Gh Dual cardholders can check the balance in their bank account or e-zwich card at terminals that accept e-zwich, gh-link or both across the country.

9. What are the Benefits of Gh Dual Cards?

- Lower cost and affordability: Customers pay less for securing and using Gh Dual cards as compared to acquiring two individual cards
- **Secure & Safe:** Its combines the security features of both the e-zwich card and the gh-link EMV card.

Card transactions are protected and secured.

10. What are the Key features of the Gh Dual card?

- ATM Acceptance: Cardholders can use their cards on the numerous gh-link & e-zwich ATMs of Financial Institutions. Customers should look out for the gh-link logo and or the e-zwich logo on ATM terminals.
- POS Acceptance: Customers can use their cards at merchant locations with gh-link & e-zwich point of sale terminals. They can also use all Hybrid POS terminals .
- Ecommerce Acceptance: The gh-link side of the Gh Dual card, can be used to purchase goods or services from any online platform in Ghana. A 3DSecure online cardholder authentication technology has been instituted to provide additional security. This does not apply to e-zwich.

11. How do I get a Gh Dual Card?

Gh Dual Cards will be issued by all Banks, Rural & Community Banks as well as Savings & Loans Companies. You may request for a gh-dual card from your bank.

12. Who qualifies for a Gh Dual Card?

Any customer who has an e-zwich card and also owns a bank account can opt for a Gh Dual Card instead of two separate cards. This notwithstanding, any customer of a Financial Institution can own a Gh Dual Card.

13. Who qualifies for a Gh Dual Card?

Any customer who has an e-zwich card and also owns a bank account can opt for a Gh Dual Card instead of two separate cards. This notwithstanding, any customer of a Financial Institution can own a Gh Dual Card.

14. Who do I contact for additional information on the Gh Dual Card?

Please contact your Financial Institution.



Life is instant & so are payments

GhIPSS Instant Pay (GIP) is a service provided by your bank which allows you to transfer money from your bank account to other bank accounts in seconds.





NEWS UPDATE

1. GhIPSS awarded for implementing Mobile Money Interoperability.

GhIPSS received Special Recognition at this year's GITTA Awards for implementing the mobile money interoperability platform.



2. Archie Hesse receives two Awards

The CEO of GhIPSS, Mr. Archie Hesse received two awards: the Man of the Year Technology at the 2019 EMY Awards and the Payment Industry Personality of the Year" at the 2019 GITTA Award.







3. GhIPSS organizes e-zwich Training for Rural & Community Banks

GhIPSS partnered with ARB Apex Bank to organise training on e-zwich for its members across the country. The over 150 participants were trained on various aspects of the e-zwich system: OMS, RESCI, POS Transactions, e-zwich Financial among others.

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SPECIAL FEATURE

Launch of the Gh Dual Card Initiative

GhIPSS on Wednesday the 7th of August, launched the Gh Dual Card, a two-in-one card that has both the e-zwich and gh-link applications. The move was in response to request by partner financial institutions for GhIPSS to explore the possibility of having both the e-zwich and the EMV applications on card.

Thanks to the support from all partners, the initiative was successfully launched by His Excellency the Vice President of Ghana, Dr. Alhaji Mahamudu Bawumia. Banks can now request for the production of Dual cards for their customers.

Below are images from the event:





AGENT BUSINESS: CHANGING THE FACE OF BANKING IN GHANA



Ghana's investment in driving the financial inclusion agenda commenced officially in 2008 with the launch of the e-zwich smart card. This was further bolstered with the introduction of Mobile Money in 2009. The e-zwich smart card and Mobile money wallets were developed to overcome existing barriers to financial inclusion, key among which were access to financial institutions, meeting bank KYC requirements and cost of financial transactions.

The initial business module for deploying e-zwich and mobile money were through partnerships with Universal banks, Savings & Loans companies and Rural Community Banks. Even though the partnership saw some growth, it was not enough to give these emerging financial inclusion services the mileage needed nor the social impact of roping into the financial sector the unbanked & underbanked. Again, Traditional banks had developed expertise in serving the more profitable banked market such that, this expertise somewhat became a hindrance to their adoption of these digital financial services, as well as service delivery to customers.

With these challenges, MNOs in Ghana began to venture into the Agent banking business module. Emulating the success of Agent business in countries like Kenya and Brazil, MNOs tapped into their existing Mobile airtime retailing outlets to extend mobile money services to users outside financial institutions. The Bank of Ghana (BOG) further bolstered this move by providing regulatory direction thereby legitimizing this emerging business model.

Today, agent business has become the backbone of Ghana's financial inclusion drive gaining unrivaled prominence. While the mobile money Agent business module is well established in Ghana, we are beginning to see growth in e-zwich Agent business often added as an additional business for the existing Mobile Money Agent business. Existing Mobile money Agents are partnering some banks to acquire e-zwich point of sale terminals in order to offer e-zwich services to the over 1.2 million e-zwich cardholders. Given Ghana's success in providing interoperability among bank accounts, mobile money wallets and e-zwich cards, Ghana is in a unique position to harness the benefits of both the Mobile Money Agent model and the Branchless Banking Agent Model.

A key feature of this proposed Agent business model is the strong involvement of banks. By leading the Agent business drive, banks would provide the much needed banking expertise, better monitoring, evaluation, risk management and compliance to agents. Agent locations can also serve as extended access points to banks thereby providing an avenue for banks to decongest their banking halls. Additionally, banks earn a portion of commissions generated by Agent locations while enjoying the float held on mobile money wallets (Agents and individuals) and e-zwich cards.

- In the first half of 2019, there were 498 active e-zwich Agents. Total volume of transactions processed by these Agents was 400k and the value was GHC1.9M.
- At the end of the first quarter of 2019, there were 180K active Mobile money Agents. Total volume of transactions processed by these Agents was 436Million and the value was GHC66Billion. (Payment System Statistics 1st Quarter 2019).

Ghana would benefit greatly from a mixed Agent business module where Agent Tills, merchant shops, post office outlets etc. can offer selected banking and retail services through; mobile phones and POS to clients. The Agent business module can be developed to cater for basic retail banking needs of the unbanked and banked (i.e. cash deposits, cash withdrawals, local remittances, P2B, P2P and G2P payment, account opening, loan, insurance etc.).

According to the 2017 Global Findex report, 45% of the unbanked in Ghana have a mobile phone and 44% of adults in developing countries use digital payments (Global Findex database, 2017). Agent banking is the future of Retail banking and is estimated to become the core form of banking especially for developing countries like Ghana. While banks may not become extinct, staying out of Agent business would certainly affect their growth and prospect. Government of Ghana remains committed to its financial inclusion drive and in migrating Ghana to a cash-lite economy. Collaboration among all key stakeholders is key to this success of this vision.



Ghana Interbank Payment and Settlement Systems Limited









Box P.M.B. 121 GPO, Accra-Ghana | Email info@ghipss.com | www.ghipss.net Call Centre +233 302 610800 | Fax + 233 302 671757

- Ghana Interbank Payment and Settlement Systems Limited
- in Ghana Interbank Payment and Settlement Systems Limited
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All comments and feedback should be sent to publications@ghipss.com