

# Taking on The Ledger/Account of Record 'The Devil is in the Detail'

A White Paper exploring the implications of a Programme Manager/Brand becoming the ledger/account of record for a payment solution.

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# Introduction

- In recent years we have seen a trend toward brands/third parties wanting to hold the ledger/ Account of Record who are not a certified scheme processor.
- There can be good reasons for this e.g. where the brand is regulated and holds a credit licence
  and has built the technology to run a credit card or some other form of lending product and needs
  to connect to the scheme only. In such cases they sit under their own regulation and the BIN
  sponsor is just the Card BIN Sponsor and not the regulation sponsor.
- The more common scenario though is where a wallet/account that wants the card to in effect act as a debit card. The wallet is running on a non-scheme certified processor, in this case the brand wants to ensure that funds are available. There is a big difference between where the Wallet party is regulated and where they are not, as the document highlights.
- A perceived reason for ledger's being used is the desire to have 'greater control', that is agency banking i.e. Sort Code & Account Number / IBAN are linked to an account not held at the processor and cards are one of many ways users access their funds. This does not however, change the controls access or risk scenarios as discussed within this paper.
- Another possible key driver for holding ledgers has been PSD2 open banking. This allows AISP services access up to four times a day automatically; if a party is paying for API/Webservice calls to a processor this can get very expensive. However, there are several set-ups that can be utilised that do not require a shifting of the balance, nor greatly increased expense and this paper will highlight these considerations.
- The following white paper thus considers the issues that the payment industry faces where third parties, often nonregulated, want to hold the ledger.

# The Payment Account Ledger

The definition of a ledger according to Wikipedia is:

- "A ledger is the principal book or computer file for recording and totalling economic transactions measured in terms of a monetary unit of account by account type, with debits and credits in separate columns and a beginning monetary balance and ending monetary balance for each account."
- The E-money, Payment Account systems are reliant on a central ledger which communicates with a number of parties to ensure that at all times funds are traced, safeguarded and auditable.
- Parties reliant on the payment account ledger are:
  - Regulatory Sponsor Responsible to the Regulator for the safeguarding of funds, information security, availability of information and funds to consumers/customers. It must meet regulatory requirements for outsourcing, data security, AML/CFT (Anti-Money Laundering and Counter Terrorist Financing), Fraud Prevention and safeguarding of funds.
  - **BIN/Scheme Sponsor** Responsible to the scheme for ensuring the implementation of all mandates, data security and flow of scheme funds.
  - Programme Manager/Brand (if self managing) Customer Services, reconciliation, reporting, fraud and AML transaction monitoring and reporting. Overall customer interaction and reporting.
  - Card Processor The card processor acts as a Switch functioning as a pass through system to seek authorisations from the PM/Brand ledger. Card Issuer, Card activations, PIN Resets etc will still be dependent on the Card Processor system.

# **The Payment Account Ledger**

 There may be within the supply chain a separation between BIN/Scheme Sponsor and Regulatory Sponsor, this is often a separation that grows over time and as PM's gain customers and experience leading them to gain their own regulatory status and take control of safeguarded accounts and other load/spend access channels e.g. Agency Bank Relationships, Cash loading etc.



## Regulatory Sponsor Access

Issued E-money record Safeguarded account reconciliations Billing Reconciliation Account Issuance – AML/CFT/KYC records Audit Access Regulatory Reporting



# Scheme Sponsor Access

Cards/Tokens Issued Authorisation /Settlement reconciliations Billing Reconciliation Scheme Reporting



## Programme Manager Access

Customer Service/Interfaces
AML/CFT/KYC Records
Fraud Prevention
Reconciliation – Customer,
Scheme, Regulatory, Billing

# **Preparing to Hold the Ledger**

- The description of a ledger as holding the balance can be misleading, whilst the balancing of available funds and reconciliation of transactions is the result of a ledger system it is as much a reconciliation of information as it is value.
- The reconciliation of transaction information can be challenging, the engine is required to match authorisations and clearing, refunds, reversals, chargebacks. As well as handle currency fluctuations, provide clear reporting and case management.
- Overlaying this is the need for split second timing and responsiveness, time outs can be a big
  issue along with ensuring that if the ledger system goes stand adequate stand in authorities have
  been given to the processor.
- The Ledger acts not purely as a record for reporting and reconciliation, but is equally part of the
  decision making process, along with the decision on available funds, other checks are
  undertaken, cryptographic, cvv, OTP etc. These decisions and processes are undertaken all
  within the time it takes to complete a transaction.
- Coupled with a significant technology lift to deliver a ledger system, by merely doing so the company will also need to become PCI DSS level 1 compliant and for Mastercard be registered as a TPP.

- The ledger function is a one that is regularly outsourced by Sponsors. It should be noted that this
  function maybe outsourced, but the responsibility from a regulatory standpoint remains with the
  Sponsor.
- Outsourcing has received increasing attention from regulators with new guidelines being issued by both the FCA and the EBA (European Banking Authority). The Terminology used is:
  - Outsourcing: Is an arrangement of any form between a regulated entity and a service provider by which that service provider performs a process, a service or an activity that would otherwise be undertaken by the regulated entity.
  - Critical function: Means any function that is considered critical in a situation where a failure would 'materially impair' the continuing compliance with the conditions for authorisation, financial performance, or the soundness or continuity of the banking or payment service. For example it is critical if it is directly connected to the provision of banking activities or payment services.

- The regulatory sponsor must demonstrate that they have oversight of these functions and that they sit with an enterprise-wide risk management framework.
- Key to the operation of the ledger is the ability to provide reports and access that enables the Regulatory Sponsor to meet their needs for reconciliation, regulatory reporting, scheme billing and settlement.
- Ideally these reports will meet the standards and formats normally received from an outsourced issuing processor. Additional complexity will likely result in delays and expense. Failure to meet standards will result in refusal to support and PM/Brand run ledger system.
- Many BIN Sponsors are uncomfortable with un-regulated parties looking to hold the ledger as
  ultimately the Sponsor is liable for the funds stated on the ledger and thus working with an unregulated party leaves them substantially exposed.
- The decision making process for the Regulatory sponsor will include reviewing the following questions:

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Question	Expectations
Has the ledger system been reviewed, audited to meet regulatory/scheme requirements?	The system should meet security, scheme and regulatory standards. (PCI level 1 is a part of this)
Can we as the Regulatory sponsor exercise independent controls over the programme in the a financial or compliance risk situation	The sponsor must be able to prevent the issuance of new e-money, or accounts.
How strong is the financial stability of the company – how would we as the regulatory sponsor take over the event of financial failure?	An external processor enables the Sponsor to access information, ledger accounts and customer information to run down programmes in the event of failure
In the event of financial failure what would happen to the information and records of the PM/Brand	As above
Has the PM/Brand been able to demonstrate IT governance in writing in the form of (organisation charts, job responsibilities, and the terms of reference of any Committees.	Formal structure, policies and procedures that demonstrate a system and corporate structure suitable for operating a Financial Services Ledger
Does the Board of the PM/B have an IT strategy which is written and approved by Senior IT and business management?	
Is IT Strategy linked to all other relevant aspects of business strategy? (e.g. Locations, products)	
Is there a Risk assessment culture within the company including the identifying and assessing of IT risks? Does Management formally consider the risks and mitigation strategy at least once a quarter?	
Are IT systems and controls subject to regular audit by an independent and qualified audit function?	
Is the management/director team at the PM/Brand sufficient to provide confidence in meeting regulatory guideline for outsourcing a critical IT function?	

Question	Expectations
Are formal procedures that require changes to the parameters, standing data, or configuration of the key software, where errors could cause system problems, tested and signed off? Does this include maintenance of a log of these changes?	
Is there a written information Security Policy?	
When was the system last audited for PCI? What was the outcome?	
Does the system have a BCP and DR plan in place? When was it last tested and what were the results?	If the PMs/Brands systems go down, this can result in fines from the regulator.
What reports are available to provide reconciliation data? Does this work in conjunction with a card processor to provide expected data for reconciliation and reporting?	
How will information flow work between Card Processor, Ledger and Regulatory sponsor to provide all the necessary reports, for reconciliations, regulatory and scheme reporting.	

- Overall the risk assessment from the regulatory sponsor will incorporate their need to meet regulatory requirements of control and outsourced reliance.
- The increasing stringency in terms of regulatory oversight of outsourced functions is likely to decrease the number of Regulatory sponsors willing to work with PM/Brand run ledgers.
- A dual ledger is often acceptable this simply allows for real time update of the PM/Brand's systems, this changes the webservices model, ensuring there is very limited need to balance enquires/cardholder updates.

# **Scheme Sponsor Only**

- BIN Sponsors regularly work with regulated entities who manage their own ledger, or move towards managing their own ledger.
- The regulated PM/Brand will manage their own systems/ledger, reconciliations and safeguarded funds.
- The Scheme Sponsor receives the reports from the issuing processor to reconcile scheme settlement, billing and reporting.
- Many BIN Sponsors are happy to work under this arrangement as ultimately the regulatory responsibility for the ledger is also with the same party and not them.
- BIN sponsors are not therefore exposed in the same way as when the party is not regulated.

# **Card Processor Risk Assessment**

- Acting as a switching facility required to authorise against an external system can increase strain
  upon the processing system and presents a possible security risk in terms of access.
- The Processor must sustain a live feed and ensure minimal time outs so that authorisations do not time out at the merchant, POS or ATM. This live feed must be included in BCP and DR planning.
- Careful consideration needs to be applied to the Regulatory and BIN Sponsorship permissions and the contractual structure and how this is applied in this scenario.
- There are a number of initiatives that require consideration in terms of regulatory changes and scheme mandates. At this stage it is unclear how this will after the combined external ledger and card switching. In particular this applies to 3DS and tokenisation.
- Many processors offer a range of 'Mirroring' options the most common being either:
  - 1. Master ledger at processor with mirroring by PM/Brand
  - 2. Master ledger at PM/Brand with mirroring by processor
- Both options are offered with stand in processing and can go someway to appearing some of the concerns of the regulating sponsor

# What does it mean for PSD2 Open Banking

- Regulated entities must offer a Modified Customer Interface or API access to any account that can be accessed online/though an app by an end user – consumer or SME
- These regulatory obligations will be passed down to any brand using the Regulatory Sponsorship
  of the main party
  - Where they are regulated themselves directly they will have their own direct regulatory responsibility for PSD2 Open Banking
- As of today, whilst the UK insists that EMIs and PIs must comply other regulators do not, it thus
  depends on both the host country, and country of passport that the product is sold in on whether
  the brand needs to comply to PSD2 Open Banking requirements
- Where the ASPSP (Account Servicing Payment Service Providers) does need to comply, and the regulatory requirement has been passed down to the brand by the ASPSP then the brand must provide access to the account
- Holding the ledger may allow the brand to deliver PSD2 Open Banking access without any additional calls to the processor
- However, as outlined for non regulated entity this may not always be possible without some solution around mirroring of balances by processors
- Brands also needs to consider the implications on API/Webservice calls charges when negotiating
  with processors if it is required for every PSD2 Open Banking AISP (Account Information Service
  Providers) and PISP (Payment Initiation Service Providers) call

# **How Can Polymath Consulting Support**

Polymath Consulting has significant experience in supporting Programme Managers / Brands who
want to take on the ledger/become the account of record.

# Becoming Regulated

 Many companies as part of the journey will look to become regulated. Polymath Consulting and its partners have helped many companies both in the UK and across Europe obtain the relevant regulatory permissions.

# 2. Find a BIN Sponsor/Regulatory Sponsor/Processor

 Polymath Consulting are involved in around 10 – 15 RFPs a year. We have a strong understanding of both market pricing and key features of all parties.

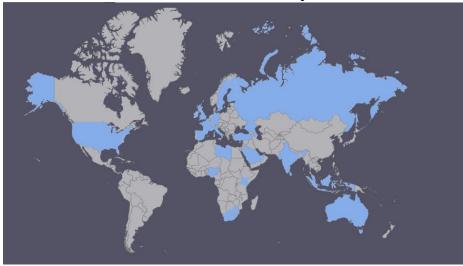
# 3. Ledger Gap Analysis

 A key requirement in the journey is to ensure that the technology is capable of being the Ledger/Record of Account. Polymath Consulting can carry out a quick 'Gap' analysis to identify any areas of weakness and then provider further support to ensure these are developed to meet the requirements.

# **Why Polymath Consulting**

- Polymath Consulting has delivered more prepaid projects on a truly global basis than any other consultancy
- We understand every market is unique, but equally many markets have common issues and challenges
- Our team is comprised not of consultants, but true practitioners, experts who have delivered similar projects before (profiles at the end of this deck)
- We do not believe any one person can supply all the knowledge but create bespoke teams to meet your requirements

Markets in Blue Where Projects Delivered



- We are happy to provide references of projects in markets such as Libya and Kenya where we have delivered/are delivering similar projects helping clients launch solutions
- Over 40% of our business is from repeat clients, and another 40% from referrals. Our aim is to build long term relationships with clients
- We have no on-going introducers agreements and are totally independent in terms of recommendations

# **Polymath Consulting: Across The Card Value Chain**

## STRATEGY

# RFP DEVELOPMENT & MANAGEMENT

# IMPLEMENTATION SUPPORT

- Health Check
  - · Value Proposition
  - · Partnership Financial Performance
  - Marketing
  - · Customer Service
  - Operational Delivery
  - Contract
    - · Obligations Review
    - Escape Clauses / Termination
    - Governance
- Competitive / Market Reviews
- Value Proposition Development
  - New Product Development
  - · Refresh / Validation
  - Rewards strategy
  - Research
  - Focus Groups
- Go-To-Market Strategy
- Portfolio Strategy
- Custom Research
- Business case development

- Partner Search Client Agent
  - Identify & initiate dialogue with potential partners
  - Advise through deal development
  - Contract negotiation support
- RFP Support
  - · Set Goals, Objectives & Priorities
    - Issues / Pain Points of current programme
    - Business needs and drivers
    - · Key Selection Criteria
    - Identify Partner Prospects
    - Write Comprehensive RFP
    - Manage RFP Process
    - NDA
    - Bidder Questions / Answers
    - Evaluate & normalise responses
    - Financial Analysis
    - Develop Short list
    - · Due Diligence
    - Site visit
    - Presentations
    - Top Line Terms & Conditions
    - Partner Selection
  - Contract Negotiation Support

- · Project Management Office
- Marketing Support
  - Segmentation
  - Testing
  - Channel Selection
  - · Consumer Communications
- Training
- Consumer Communications
- Reporting
  - Design
  - · Process Implementation
- On-going Performance Measurement
  - Dashboard

# **Some Clients**





























DIAMOND































**Park** Group plc

















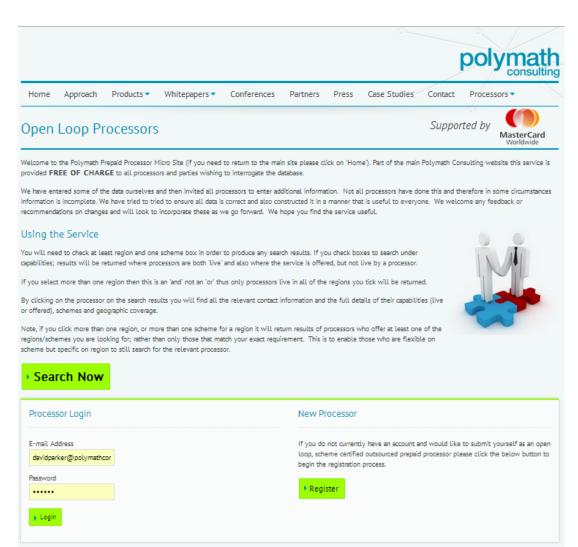
# **Global Database of Prepaid Processors**

- Nearly 100 processors listed
- All capabilities

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- Supported by Mastercard
- Search for yourself, no registration at:

http://www.polymathconsulting.co m/openloopprocessors



# **Global Press Coverage**

## How is the prepaid business doing?



THE REPORTS WHEN



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# MOBILE PAYMENTS

### Receipts Prove the Solution to Bank Data Needs

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. In my mind this is a first, very small step in and a potential langue is both the nave of the future and a potential land-graft for the customer. Let me coplain. We are starting to see the launch of a request in the most pic capture services that stone receipts - whether by email, mobile cement or scanner - that is effect create a receipt wait for a customer; o place where elf of one's receipts are succonarically stored.

These receipts can then be tapped by protect or event making it easy for a business to run reports meand recognition of the control taggets on program for extramatic network of proviously purchased good in specific activities. Some of the adminishment sold for the automatic network of proviously purchased good in which in the case of indicating your regular toy of confidence would be must be assert and time effective. Apide from these controlled and regulatory thought proviously purchased supports of the locality florescent, which information their provious for the total controlled asserts of the locality florescent, which information their provious florescent and restricted and resourced and well artificiated deletions replaces not be for instantiant in talquisities.

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Paybefore: Acus and its And there appealful assertion from the total or better than others?

# Scheme Private Label

### Are these products really understood?



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Insurvations in the prepaid out industry are numerous. Take, for instance, self-interactive's faces and, an open-loop, MasterCard Worldwide-Intended, general purpose releasible until targeted to temagery and yearng adults.

Find understood what people would better than they did, Innovation in the marketplace occurs from deep understanding by immeasure of their customers - their problems and mode,

Henry Fund, inventor of the Model T, which democratized transportation for the moses, once said, "If I had asked people what they would, they would have said faster horses," We can

. Furth "Why do you want a faster horse?" + Customer: "So I can get to the store in less sime." Ford: "Why do you want to get to the store faster?"
 Contomer: "So I can get more work done at the form."

imagine the exchange that elicited that insight into how people

E-Magazine

Some 18:11:A - November 12, 2010

Innovation in prepaid by David Parker , Polymeth Countiting Ltd.

Through what add calls Prewards. Gen Y consumers are incented to bey digital goods from select retailers that take part in odd's merchant network. The digital incentives (discounts) are pro-funded by merchants and loaded directly onto the cards. This innovation has proven successful. Edit reports that the marrier of unique visions to the facecard website is increasing 50 percent monthly. The Nashville-based company also asperts facecard merchants receive an average of \$15 of evita revenue per month per contenter using Pressands.

Another example of innovation is an ANA black strategy that converts customers initially denied learn into credit worldy bank customers. When customers are turned down for bank learn, propoid cools are automatically unit to them. If they use the cords for six months, they can request an upgrade to an entry-level could like find to the same cord.

ASA said 75 percent of customers activate the cards and a third of those actually use the cards. Of those using the earth, half go on to obtain a credit line in the future. So roughly 13



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