Processing: What are your Options
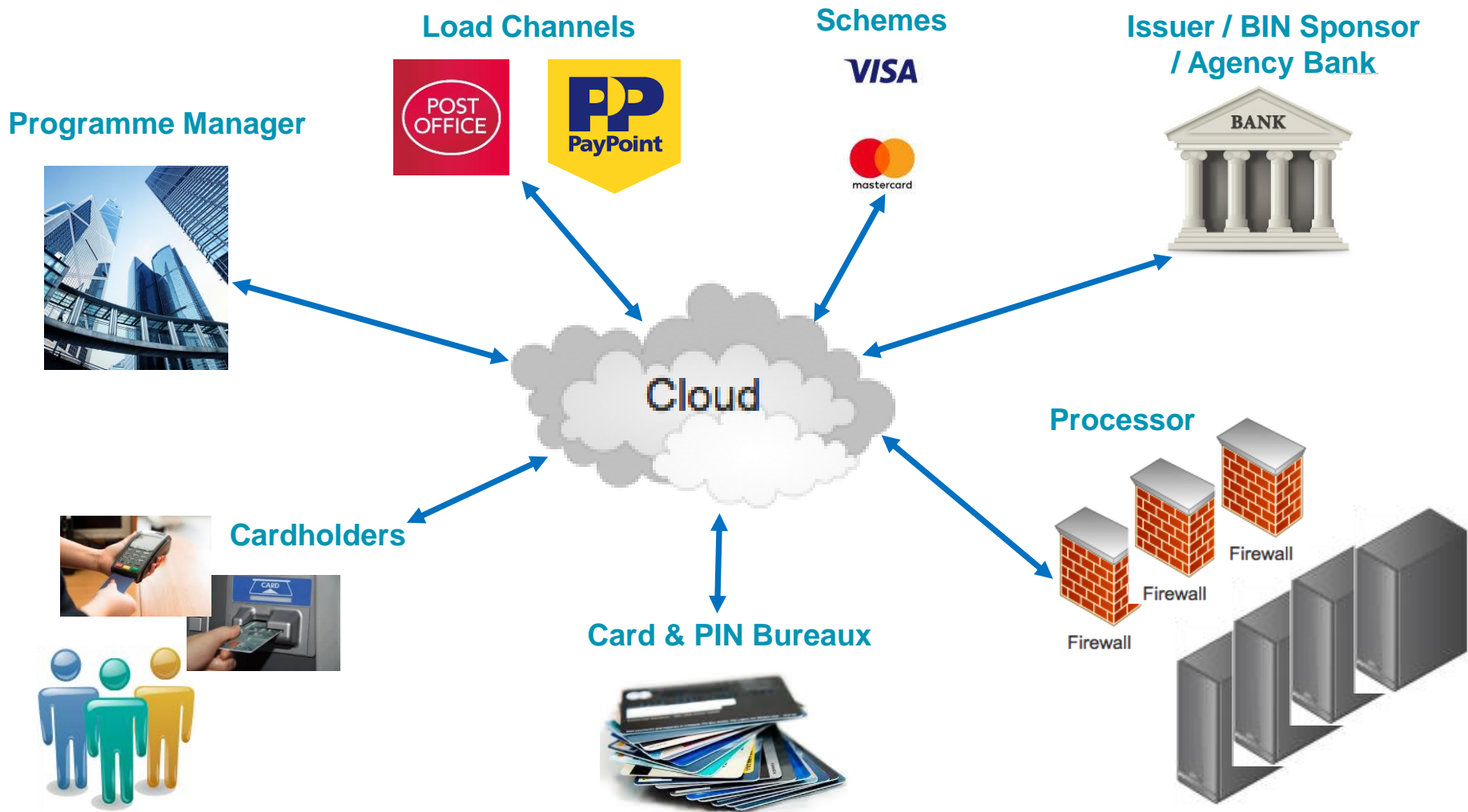## E-Money Prepaid & Debit Cards

Date: November 2017

Background/Introduction

The following white paper outlines:

- What services you can expect from a prepaid processor within the overall prepaid value chain

- What to be aware of when selecting a processor

- How services processor and a programme manager can overlap

- How it is important to select a model that suits your current and future business plans – *one size doesn't fit all*

- The two additional options that exist in terms of :
  - Authorization from third party balance account e.g. acting as a debit card from account
  - Complete card management run with just scheme access through a certified processor

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The Overall E-Money Prepaid/Debit Ecosystem

Load Channels

Schemes

Issuer / BIN Sponsor / Agency Bank

Programme Manager

Processor

Cardholders

**Card & PIN Bureaux**

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Who Does What?

- There are three key roles within the prepaid card implementation structure each with their own responsibilities plus the programme manager and the card production/Perso Bureau

The Programme Manager

- Co-ordinates & controls the different entities & disciplines providing an end-to-end solution for the end client
- Acts as an aggregator
- Brings experience and knowledge to the solution and frequently relationships with the third party brands

BIN Sponsor / Funds Deposit Holder

- Provides access to the network & regulatory compliance
- Has full financial & compliance obligations, is responsible for submission & approval of the programmes through card associations
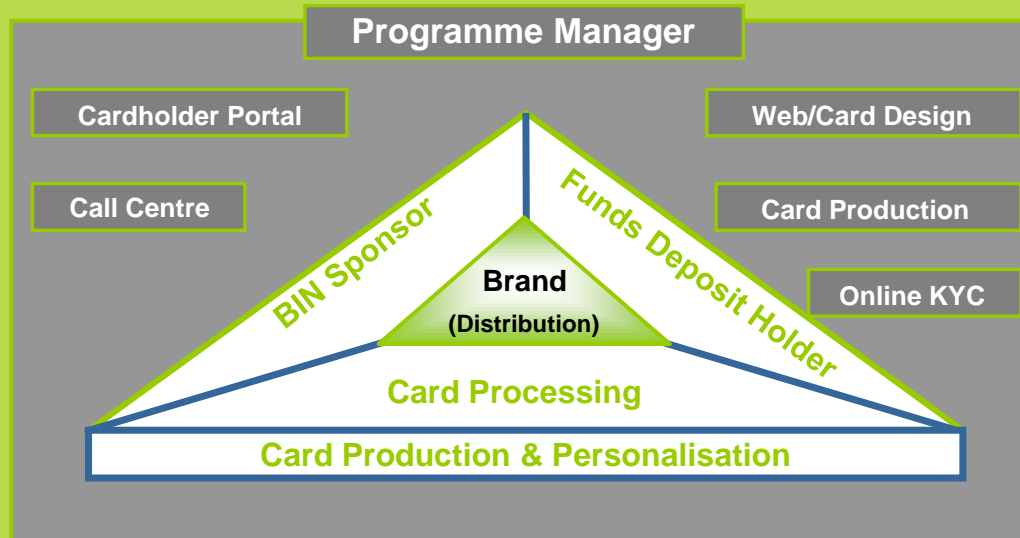
Card Processor

- Holds the virtual balance & processes the card payments
- Provides connection to the payment network

Programme Manager

Cardholder Portal

Call Centre

Web/Card Design

Card Production

Online KYC

BIN Sponsor

Funds Deposit Holder

Brand (Distribution)

Card Processing

Card Production & Personalisation

Card Production & Personalisation

- The networks have strict rules regarding card production in order to ensure security and minimise fraud opportunity. These rules cover all production and distribution elements of the process

What services does a Processor Offer
(in the context of card issuing)

- Minimum Provision
    - Outsourced provision of card management platform
    - Provision of core functionality
        - Card lifecycle management / structures
        - System of record account balances
        - Multiple limit structures / load / redemption controls
        - Multiple fee structures
        - Real-time authorisation processing
        - Online transaction processing
        - Clearing. & Settlement processing and reconciliation
        - 3DS
        - Stand-in processing
        - Management, business development, back office, and settlement reporting
    - Integration
        - Card multiple schemes with full certification
        - BIN Sponsors / Issuers
        - Card bureaux / PIN providers
        - Programme managers
        - Load channels
        - Multiple compliant APIs
    - Compliance
        - PCI DSS

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Typical Value Added Processor Services

(In addition to the core services)

- Card account on-boarding including:
  - Application portal
  - E-KYC integration
  - PEPS & Sanctions checking integration
  - Integrated card approval workflow

- Risk Management Services including:
  - Fraud alert monitoring
  - Dispute & Chargeback management

- Cardholder Services
  - Contact centre
  - IVR
  - SMS
  - Branded cardholder portal

- Programme Manager Portal
  - Ability to view online transaction processing
  - Transaction adjustments
  - Dispute / Chargeback initiation
  - Card ordering
  - PIN reminder processing

- Integration to loyalty platform

- Outbound / remote authorisation processing to support programme manager system of record

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Differentiator Processor Services

- Support Services / BPO
  - Risk Management
  - Compliance
  - Clearing & Settlement

- Branded mobile application

- Programme Manager self-service portal
  - Ability to set up new programmes
  - Ability to amend existing programme configuration

- Payments As A Service (PAAS)

- Digital banking application / services

- Global presence

- Agency banking
  - Integration (directly or indirectly) to clearing systems
    - Faster Payments
    - SEPA
    - Others
  - Ability to administer and process direct debits and regular payments
  - Ability to process person to person payments
  - Availability of relevant management information

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Current Processors

- There are, in Europe, some 16 other potential processors:

1. Carta Worldwide
2. EML
3. Financial Software & Systems ltd
4. First Data Slovakia
5. FIS
6. Global Payments
7. Global Processing Services Limited (GPS)
8. i2c Inc.

9. M2/Digital Payments Plc
10. Marqeta
11. PrePay Solutions
12. SIA SpA
13. TSYS
14. Valitor
15. WaveCrest
16. Wirecard

For a full list of processors, and their capabilities visit the Polymath Consulting Website for a free searchable database.

https://www.polymathconsulting.com/procopenhome.php

Key Contract Considerations

1. Service Levels & Service Credits
   - There is no excuse in today's always available digital world for accepting lower than 4*9 availability
   - Evaluate the proposed service credits for SLA failures to ensure they compensate adequately for any business impact

2. Continuous repeat minor breaches
   - Ensure the contract provides for compensation / ability to terminate for continuous repeat minor breaches as opposed to just major breaches

3. Monthly Minimum Commitments
   - Typically minimums are based on your forecast, be realistic, it may appear attractive to forecast higher volumes to attract lower transactional fees, but it also means higher minimums. The minimums are a contractual commitment for the term of the agreement

4. Fees & Payments
   - Ensure the contract clearly defines when and how a fee is applied
   - Are the services exempt from VAT and if so what adjustments (if any) are there for irrecoverable VAT.

5. Roles & Responsibilities and Services
   - Ensure the contract or any schedule clearly identify each institutions roles and responsibilities and that the processor services are clearly defined

6. Fraudulent transactions
   - Ensure that the liability for fraudulent transactions is clearly defined

7. Termination rights
   - Ensure that the termination rights and consequences are well defined.
   - Are there fees for termination for convenience

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Key Technology Considerations

- Ensure you undertake extensive due diligence
  1. What is the technical infrastructure and where is it located?
     - If the processor is using physical servers in its primary data centre, does it have a secondary data centre?
     - What is the disaster recovery process, and timings, you should be targeting zero cardholder disruption
     - If the processor is using cloud computing and using a third party provider, what are the SLAs with the 3rd party?
     - Obtain a detailed diagram of the infrastructure components
  2. Availability
     - Obtain availability statistics for prior years and ensure explanations are provided for any breach of availability SLAs
     - Speak to the processor customers
  3. Capacity planning & Performance
     - Obtain evidence of current infrastructure usage versus capacity
     - Understand how the processor can increase capacity
     - Obtain transaction / API per second processing performance statistics
  4. Monitoring
     - What tools is the processor using to monitor the entire infrastructure?
     - Is the infrastructure monitored 24x7?
  5. Security
     - Understand the process information security policies and processes governing the infrastructure and data
     - N.B. the processor may not allow the policy and process to be released but will talk through it / share sections
  6. Change Control
     - What is the process to promote changes to the production environment?
     - What is the release management process?
  7. Production issues
     - What is the incident management process
     - How do you report issues
     - What are the SLAs to respond / resolve issues

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Key People Considerations

- Typically the process will utilise the following groups of resources to service card programmes make sure you understand where they are located and ensure the key resources operate in your time zone
    - Sales Support
    - Delivery / project management
    - Change control
    - Production support
    - Development
    - Testing
    - Technical programme manager helpdesk
- Understand the level of experience the team has and how you will be supported throughout the contract term
- Understand the escalation routes in case of issues
- What are the processors aspirations regarding:
    - Product strategy / roadmap
    - What is its product investment policy
    - Geographical expansion
    - Change in mandate
        - Will they become a member / programme manager and cause a conflict of interest
    - Does the processor sunset products?

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Processor v's Programme Manager Services

- As processors have grown and offered valued added services, the definition of what a processor is versus a programme manager has become increasingly blurred
- A processor and a programme manager can both offer the value added services listed earlier in this paper
- It is also possible that the programme manager could offer many of the processor differentiator services but less likely
- The majority of processors are not scheme members, whereas there are many programme managers that have one or multiple scheme memberships
- In addition you should be aware of the following key responsibilities

Issuer	Payment Scheme
• Compliance with Network Standards	• Franchise Development & Brand Standards Reviews and Approvals
• Ultimate Regulatory and Financial Responsibility for Customer Service, Operations, Risk & Fraud Management	• Programme Review and Approval
• Scheme Settlement & Reporting	• Card Approvals
• Approve Programme Design	• BIN Setup and Configuration
• Cardholder Agreement & Disclosures	• Risk Management Reviews
• Securing the BIN	• Approve Vendor Registrations
• Sign off and Approval of Network Paperwork	• Generic Marketing Material Templates for specific segments
• Securing Mastercard Approval repeat of above	
• Register MSPs, ISO's and TPP's, dependent on scheme	
• Cross-selling to Issuer Customers	
• Reconciliation	

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Becoming Your Own Certified Processor

- Becoming your own processor is a big step
- Polymath normally estimate that a budget of between USD/Euro1.5m – 2m and a time of around 12 – 18 months is realistic for the process
- It is normally not worth considering unless the company expects/is processing over 500k cards
- There are a number of platforms in the market that offer a licenced solution, that is a purchase of a licence of the software to run on your own installation. The main providers are:

1.	TSYS		8.	HPS
2.	FIS		9.	M2M
3.	Yalamanchili		10.	HP
4.	FSS		11.	HPS
5.	OpenWay		12.	S2
6.	FDI		13.	Wirecard
7.	ACI		14.	Compas plus

- However, often additional bespoke development of middleware is required to enable the platforms to full deliver the desired functionality

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Taking on the Record of Account

- Instead of using a certified processing, some PM's have taken on some of the responsibilities by holding of the Record of Account

- There are two options on how this model has worked:

1. In effect becoming the Processor;
- In this situation the PM is in effect the Processor, but they use a certified scheme Processor to switch transactions to the network
    - Thus while the card programme is certified and has end to end testing done pre launch, the Wavecrest platform is not scheme certified avoiding this long and costly process
    - They are registered as a Third Party Processor (TPP) and have PCI level 1 compliance

2. Just hold the Record of Account; such as many of the wallet providers
- In these situations the Card (whether prepaid or debit) acts like a debit card with authorisation coming directly from the wallet balance
    - So when a transaction comes in the balance is checked on the wallet, not what is held on the card processor
    - The card is still run by the card processor, but the record of account is held by the wallet provider

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PM Taking on the Record of Account

Advantages

- Greater control of/reduced costs when transactions are made between wallets or directly to third party merchants and not through a scheme PAN number
- Load channels are directly integrated to the platform and there are no 'processor' costs on loading

Disadvantages

- Need to run technical systems with staff and resource implications (the technical aspects are more significant for option 1)
- Costs of setting up either building or licencing platforms to deliver it

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How Can Polymath Consulting Help

- Polymath Consulting has a wide range of resources

- Our areas of support cover from running a full RFP for a processor

- To supporting you identify the right processor where you wish in some way to still hold the record of account

- We can also support you and your chosen processor in technically setting up the best configuration to enable you to hold the record of account

- We can also assist you with identifying the right BIN sponsor for such a relationship.

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