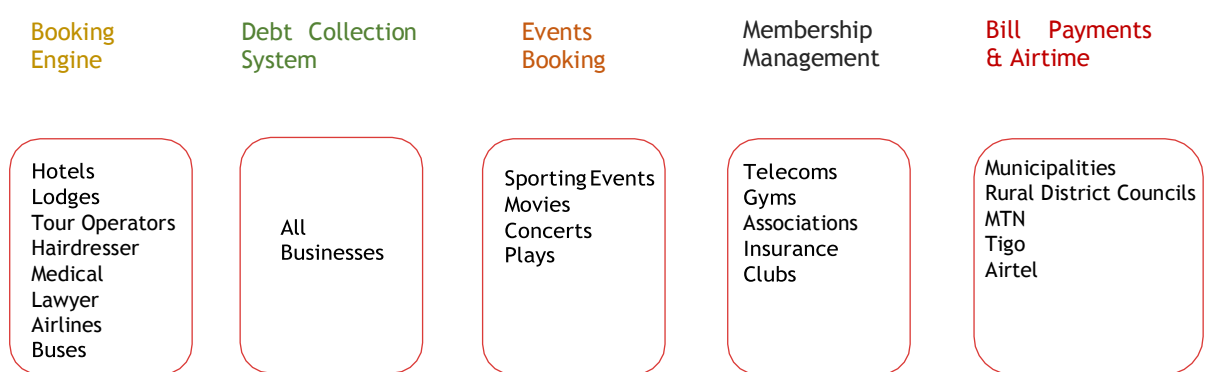# Paymart®

Payment Service Provider (PSP)

Background

Paymart (Pvt) Ltd are developing a Payment Service Provider (PSP) ecosystem in Rwanda that will primarily enable businesses to establish digital channels (websites, mobile Apps, USSD and social platforms) that will have the ability to process transactions via multiple payment streams to include VISA, MasterCard, Alipay, Rswitch, and mobile wallets.

Paymart gateway will be an E-Payments ecosystem that enables organizations with varied business models to seamlessly establish digital channels. These digital channels enable businesses to offer existing products and or offer new products and services to existing, as well as, new markets. The Paymart underlying merchant gateway will be Payment Card Industry Data Security Standard (PCI DSS) Certified and is 3D Secure enabled. The gateway will natively interoperable with the Mastercard Payment Gateway Service (MPGS), IPAY, CyberSource amongst others.

Paymart aims to develop a number of business model aligned Business Support Functionalities (BSFs) that are offered to its merchants for FREE. Paymart will incorporate these BSFs into a merchant's existing website or alternatively, develops a new website on behalf of an approved merchant for FREE. All Paymart functionalities and websites will be equipped to handle a wide range of payment streams to include VISA, MasterCard, Alipay, vPayments and mobile money, amongst numerous others.

Available BSFs?

Booking Engine	Debt Collection System	Events Booking	Membership Management	Bill Payments & Airtime
Hotels Lodges Tour Operators Hairdresser Medical Lawyer Airlines Buses	All Businesses	Sporting Events Movies Concerts Plays	Telecoms Gyms Associations Insurance Clubs	Municipalities Rural District Councils MTN Tigo Airtel

The list of BSFs that merchants can employ on their platforms include:
- a booking engine,
- debt collection system,
- event management and booking,
- membership management and

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bill payments support.

The merchant's end user clients are able to purchase goods and services using their credit cards, debit cards, mobile wallets, amongst other payment options.

The Booking Engine allows hotels, lodges, tour operators or any reservation and appointment-based business to secure reservations from their clients directly from their websites.

The Debt collection System automates the debt collection process for all types of businesses and provides an efficient and comprehensive debtor collection process.

The Events Booking functionality allows theatres, sporting associations and other entertainment organisations to sell event tickets online.

The Membership Management functionality allows entities like gyms and housing associations to effectively manage member subscriptions.

Offline Channels

Paymart will additionally offers Mobile App based point of sale (POS) services that allow for both 'card- present' and 'card-not-present' transactions. Paymart will seek to capacitate physical merchants to acquire debit card transactions utilising this functionality.

The System

- We require a solution for passing payment instructions instantly between financial institutions.
- Instant transactions critically must return a trusted proof of payment notifications upon process completion.
- We require single transactions (for retail and P2P/P2B/B2B/B2P), bulk transactions (for corporates and Bank to Bank), wallet transactions and card transaction availability
- We would like to process schedules, Pre-Paid & Post-Paid Bills.
- We would like to make the Paymart portal available to 3rd parties for a fee.

Security is of the highest concern for real-time high value financial transactions.

The system Components

Paymart Payments Circuit (PPC)
- Full transaction switch that can instantly transfer funds between any account and another.
- Based on Hashgraph (distributed ledger technology) for security.
- Can handle single transactions, bulk transactions, POS transactions, wallet transactions, online bank accounts, cryptocurrencies, accepts remittances, debit orders, reversals.

User Management System

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- Module for authentication, proxy resolution, settings, saved accounts/billers, history & reporting

Payment Management Portal
- Web based portal for banks and 3rd parties to customize their transactions, fees, view/export reports, view/register/manage their clients, view exposure.

Settlement Engine
- Compares transactions between financial institutions to generate settlement reports. Settlement engine can be used by Treasurers (via Payment Management Portal) to effect net settlement via API with reserve bank, either automatically at predefined intervals, or manually via the Management Portal.

3rd Party Integrators
- 3rd Party Integrators could be any system that require instant transfer of funds from one system to another. This includes any mobile wallet, POS machines, ecommerce websites and other systems.

Bill Providers/ESchedules/Pre-Payments/Post-Payments

When funds are moved between 2 accounts, PPC can also call other systems to complete a transaction by notifying the system that something has been paid fo