

PAYSYS

We aspire to be the **LEADING PROVIDERS** of **INNOVATIVE AND IMPACTFUL SOLUTIONS** that solve diverse and complex problems in the **DIGITAL PAYMENTS** and **FINANCIAL SERVICES** Sectors the World Over.

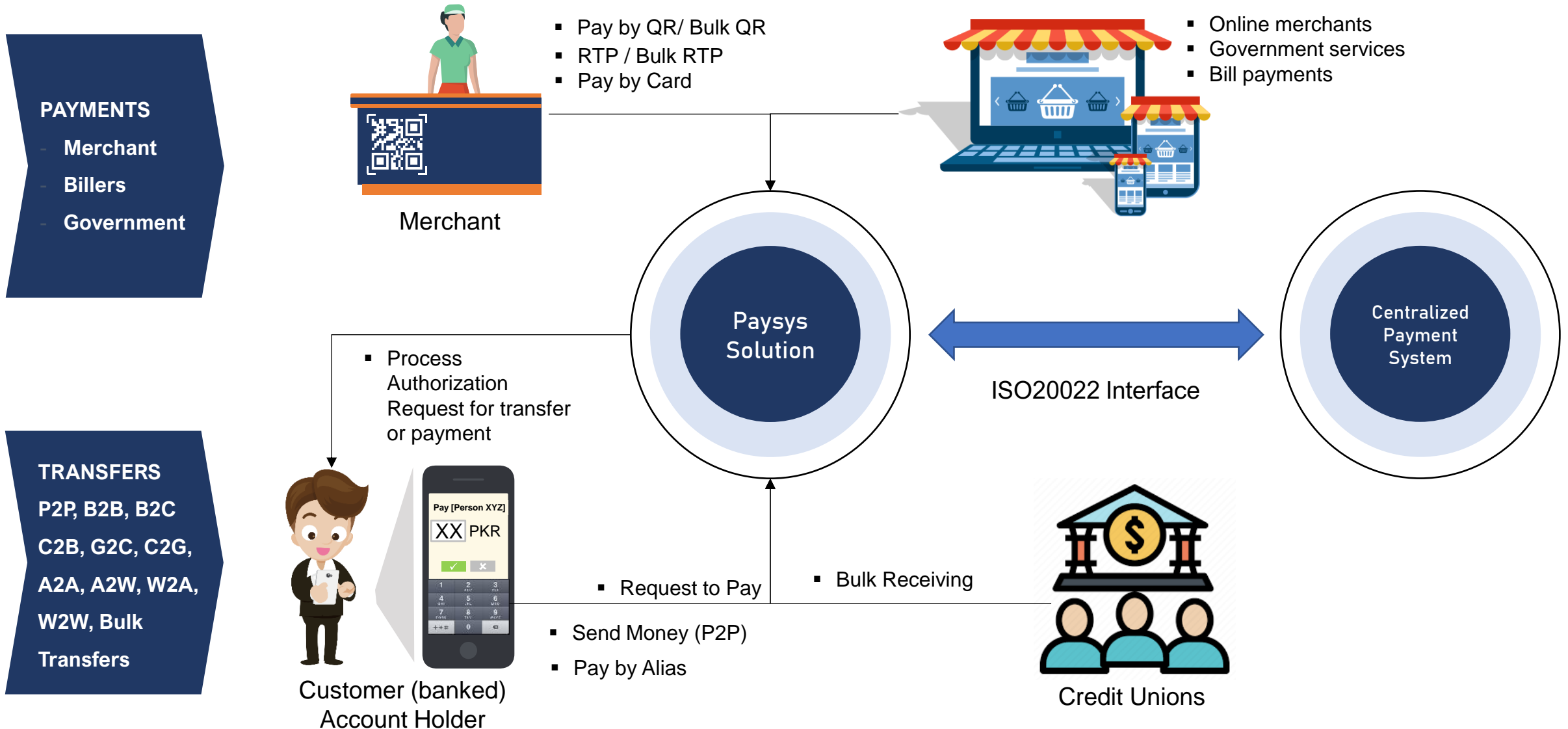
OPEN CONNECT Middleware Platform



OPEN CONNECT MIDDLEWARE OVERVIEW

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Variations of Use Cases Covered Across various Open Connect Deployments



OPEN CONNECT MIDDLEWARE OVERVIEW

Product Introduction and Overview

OpenConnect is a robust integrated middleware platform based on the Advanced Message Queuing Protocol Rabbit MQ, this makes it Horizontally Scalable and Cloud Ready from the get-go. The platform is already widely used for integration between Payment Systems, Core Banking Platforms, Wallet Platforms and Digital Channels



FLEXIBLE

Support for multiple industry standards, such as: Message Based – ISO8583, ISO20022 as well as proprietary formats

- API Based (Rest, SOAP/XML, JSON)
- ISO 8583 & ISO 20022
- Fixed length
- Store procedure calls
- Proprietary & Legal message formats
- Microservices API
- Support both Asynchronous and Synchronous message processing
- Store and forward module (SAF mechanism for guaranteed delivery)



MONITORING

Monitoring of transaction messages with latency and turn around statistics and monitoring of queues

- Monitoring of transaction messages with latency and turn around statistics
- Monitoring of queues
- Health Monitoring of network connections
- Elastic search and Kibana algorithms used for monitoring logs



SECURE

Supports Mutual TLS for transport layer security (TLS 1.3), JWT (JSON Web Tokens 2FA), as well as other security standards.

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- Supports message integrity through checksum generation and verification
- Complete auditing for all messages

PAYSYS

RabbitMQ

Powerful

Core message queuing engine is widely used and benchmarked for more than 1 million messages per second.

Configurable

It supports configurable routing that can be set up based on a single field & combination of fields.

Elastic

Message flow configuration to support standard message integration patterns.

OPEN CONNECT MIDDLEWARE OVERVIEW

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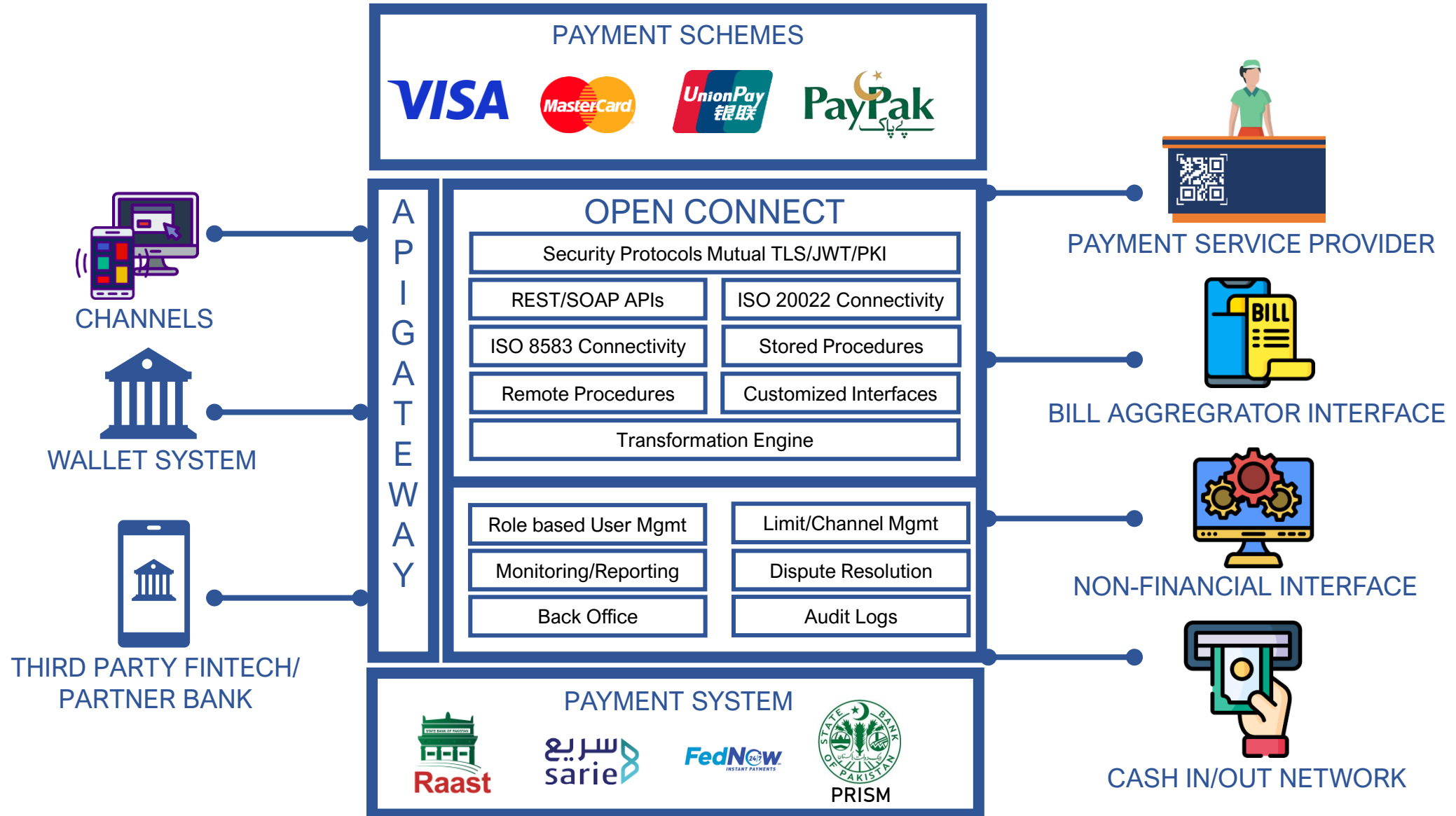
BACK-OFFICE OPERATIONS

- Role Based User Management Module
- Basic Transaction Monitoring and Reporting Module
 - ✓ Transaction Searching/Reports
 - ✓ User Reports
 - ✓ Audit Trail
- Reporting
- SMS/E-mail Integration and Management
- SAF (Store & Forward)
 - Monitoring & Management
- Return Payment & Request to Return Payments
- Bulk Payment
- Directory Services
 - ✓ For Alias based payments, Open Connect can host the Alias–Account Mapping so that the transaction requests received from MPG with Alias can be transformed into account-based requests and send to respective system.
- Channel Management
 - ✓ Interface for channel parameter management
- PKI Certificates and Key Management
 - ✓ Management of PKI related parameters
- Customer/Channel limit management
 - ✓ Optional module to add customer/channel limits on different transaction types.



OPEN CONNECT MIDDLEWARE OVERVIEW

Open Connect High Level Architecture



OPEN CONNECT MIDDLEWARE DASHBOARD

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GRAFANA Dashboard



TRANSACTION DASHBOARD

Transaction dashboard is a comprehensive platform providing real-time visualizations and analytics for outbound and inbound payments.

BENEFITS:

- **Real-time Visibility:** A Grafana dashboard allows you to always keep an eye on the state of your systems. This can assist in identifying any concerns as soon as they appear, enabling the company to move swiftly to address them.
- **Performance Optimization:** The metrics gathered by Prometheus and shown on the Grafana dashboard might offer information on how well the company's systems are performing. With this knowledge, the company may adjust its systems to guarantee that they are performing to their full potential.

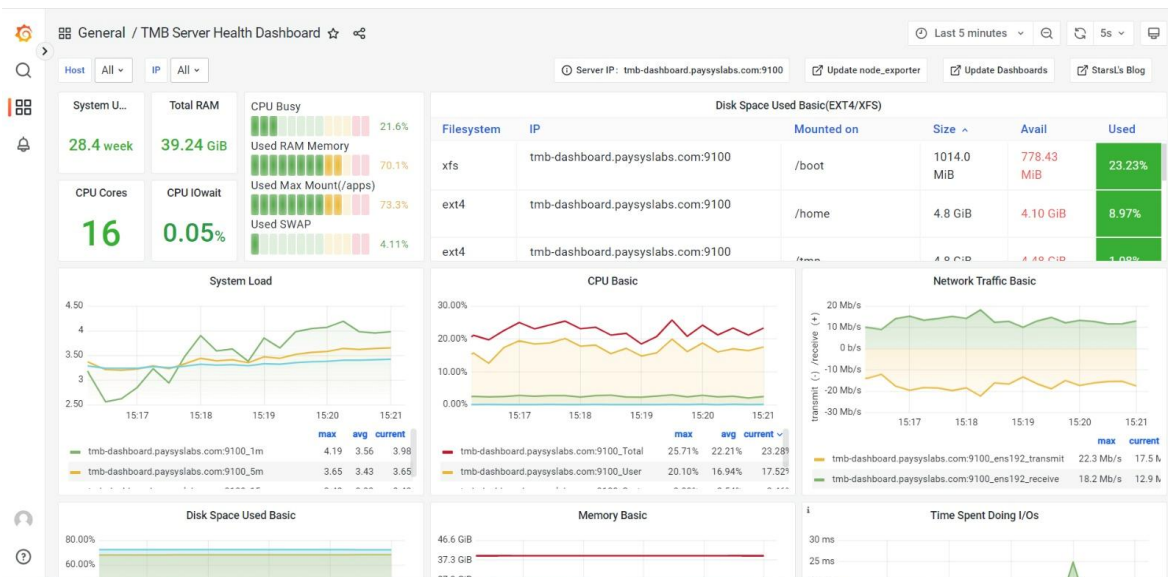
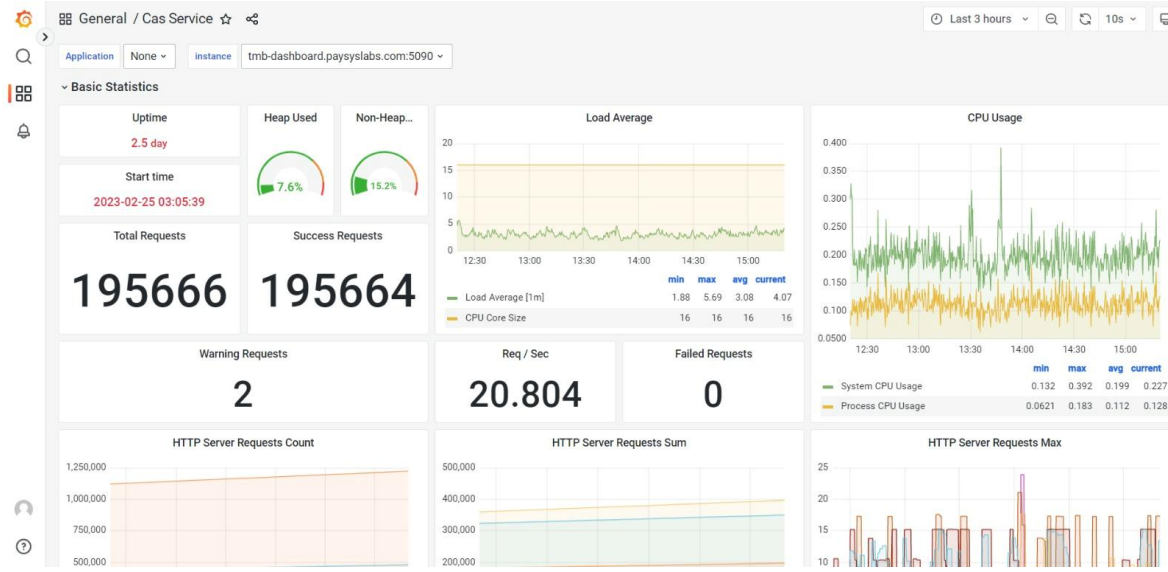


HEALTH STATUS DASHBOARD

This dashboard will be used to monitor the Health Status, title fetch and direct posting apis. It will show you the precise number of transactions that have been rejected and accepted so you can determine whether the system and apis are functioning properly.

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OPEN CONNECT MIDDLEWARE CASE STUDIES

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What Have We Done In The Instant Payments Space

Our Instant Payments Expertise

We excel not just in the tech behind Instant Payments but the science, the rationale of What Really Makes An Instant Payment Better Than A Deferred One and under what circumstances the cost of instant is a viable proposition.



RAAST – Micro Payment Gateway @ SBP [2018]

We have served as Subject Matter Experts for the development of requirements, selection of vendor, procurement, and implementation of Pakistan's Instant Payment Platform "RAAST".



PRISM – Real-Time Gross Settlement System @ SBP [2021]

We are the lead consulting firm that has developed requirements and is in process of selection of vendor, procurement, and implementation of the revamped RTGS platform.

Middleware provider of choice for connecting with Instant Payment System for 20 Financial Institutions. This is on both a hosted as well as on-prem configuration



OPEN CONNECT MIDDLEWARE CASE STUDIES

What Have We Done In The Instant Payments Space



Cross Border Integration of RAAST with BUNA for Remittance Outflows to Pakistan



Subject Matter Experts for conducting the feasibility of integrating BUNA & RAAST to establish an instant payments-based remittance corridor. This is to serve as an alternate to the legacy correspondent banking-based remittance industry.



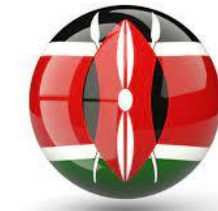
Subject Matter Experts for;

- Review of existing landscape, market, and licensing regime.
- Review of payment system rules and governance structure of 4 relatively mature countries (UK, Canada, Singapore, and Hong Kong)
- Comprehensive report on analysis of current payment ecosystem and drafting of regulations for PSPs and EMIs to accommodate PSOs/PSPs

Development of Core Scheme Rules in the first phase followed up with the development of P2P Scheme Rules in the second phase.

Lead firm for the development of requirements, selection of a vendor, procurement, and implementation of three distinct payment ecosystem components at the same time,

- Hosted wallet platform.
- Payment Gateway
- Instant Payment Platform



Careem Pay has chosen to partner with Paysys Lab to integrate with its system and the (CBUAE) AANI instant payment system.

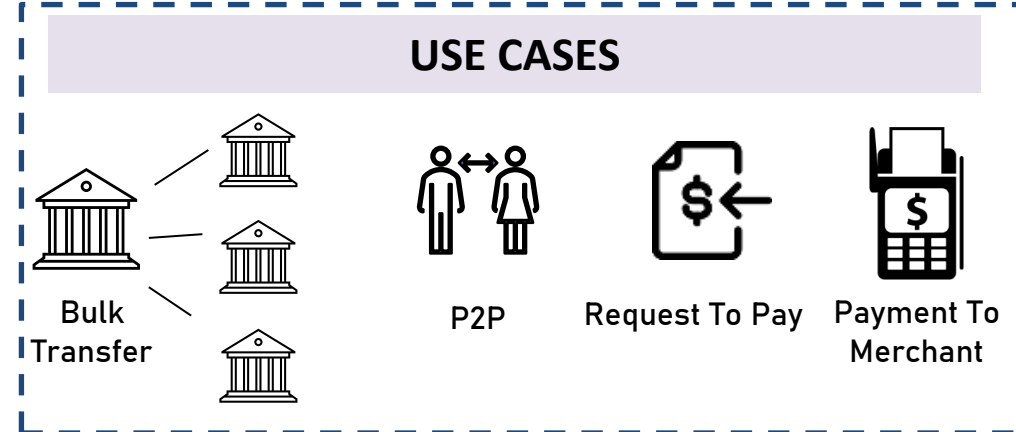
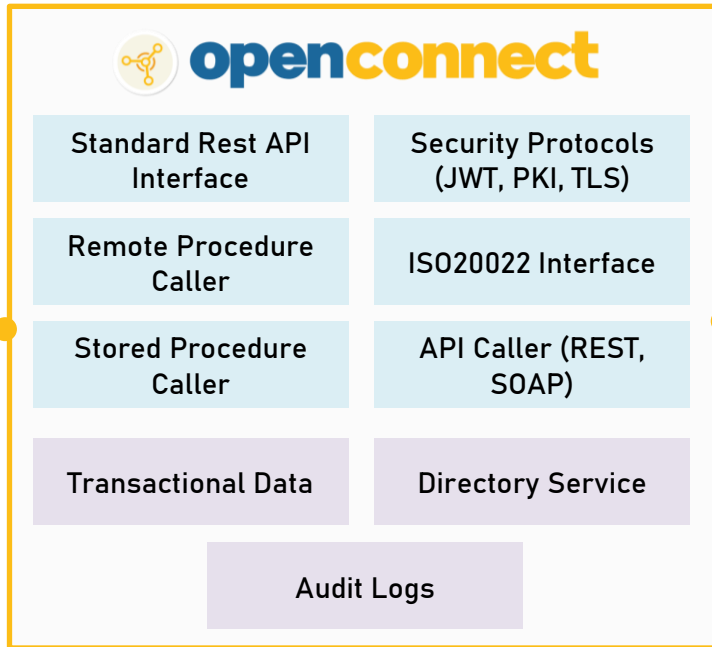


OPEN CONNECT MIDDLEWARE CASE STUDIES

Easy Paisa Digital Bank Case Study



Easy Paise Digital Bank has chosen us to implement Open Connect as the intermediary interface between their infrastructure and system.



	DAILY	MONTHLY	TO DATE
VOLUME	750,000+	23 Million+	185 Millions+
VALUE	2 Billion PKR	55 Billion PKR	600 Billion PKR

TRANSACTIONAL THROUGHPUT OF SYSTEM

THANK YOU