Acquiring Module

Mylapay

Introduction:

Mylapay, an emerging fintech company, is incorporated and operates under the legal entity Mindeed Technologies and Services Pvt Ltd. Mylapay serves as a technical service provider in the payment industry, specializing in payment enablement with full-stack product capabilities for acquiring payments.

Bank is exploring a technology partner to set up the Acquiring Module product application within Bank (in-house) to manage the acquiring payments operations.

Mylapay, a registered TSP with Bank, is approaching the bank as a technical partner to set up the acquiring module within Bank's own facilities/technical environment.

Both Bank and Mylapay are engaging in a discussion to facilitate the Acquiring Module POC (proof of concept) for Bank to evaluate the product/application and outcomes.

Purpose:

The objective of this document is to provide a comprehensive framework for the Acquiring Module product/project, outlining the pre-requisites and requirements, scope of work with detailed steps, processes, defined tasks, deliverables, and timelines. The goal is to ensure alignment among all stakeholders, establishing well-defined parameters and standards to guide the POC project to successful completion.

Pre-requisites/Requirements of Bank:

A. Broad Scope of Work

The following outlines the high-level scope of work requirements for Bank, which expects the Acquiring Module to possess the necessary technical capabilities.

1. Partner Setup – BIN/ICA/PID/Settlement Account across Master Card, VISA, Amex, Rupay

2. Support Master MoneySend and VISA Direct as well along with Merchant Acquiring transaction

3. Support DMS and SMS transactions

4. Read, Process Outgoing and Incoming Files, Read Merchant Master

5. Ability to link all legs of a transaction lifecycle e.g. Sales, Refund, Chargeback, Pre-Arb etc

6. Generate JV/statements/TTUM after matching Incoming and Outgoing across different networks and Partners and based on Active MID list
   a) Dedicated BIN/ICA – Single Aggregator partner for the BIN
   b) Shared BIN/ICA – There are multiple aggregators mapped to BIN/ICA and settlement has to be bifurcated basis File ID/Merchant ID/BIN etc

7. N/W Billing and Interchange Reports Analysis and Bifurcation
   a) Dedicated ICA/BIN
   b) Shared ICA/Bin
   c) Business Reports Generation

B. Detailed Work Requirement

The following details the work requirements for Bank, which expects the Acquiring Module to manage the process and deliver reports.

1. Outgoing Reading & Processing (Early Settlement): Partners will provide outgoing files daily at mid night/early morning on SFTP, system should auto pick the file and generate summary and a TTUM file to allow Bank Ops team to do early funding.

This document is private and confidential

2. Outgoing Reading & Processing (No Early Settlement): same as above but not TTUM to be generated

3. Incoming vs Outgoing recon and Summary: System should match Incoming against Outgoing and should generate partner wise and Cycle wise JV file. JV File should contain Sales/Refund/Chargeback/Interchange Fee/Billing Fee/Switch Fee/Switch Fee GST

4. Validation against Merchant Master – Identify transactions for Registered MIDs based on Merchant Master. Not identified to be identified separately and shown in JV.

5. Reports Generation e.g. MIS Reports, Out sales report, chargeback report, presentment report and rejection report. (Visa/Rupay/MasterCard /Amex and Partner wise)
   A. FETERs report
   B. QMR/GOC
   C. Fuel/Non Fuel Data
   D. FIRC Report
   E. Monthly Network and Partner wise Billing Report
   F. Reconciliation Interchange Fee at the transaction level.
   G. DCC Report (Partner wise)

C. Change Management

If any amendment's/Changes done by the Network in the clearing format/Reference manuals/Parameter Tables layouts/User Manuals, all should be taken care by the Vendor and the same should be implemented/updated in the Application/Module by the vendor. Bank team will signoff on the changes and efforts.

D. Product / Application Management

Bank expects the technology service provider to have the necessary technical capabilities to handle the complete requirements independently, without relying on the bank. Additionally, the product application should be deployed at Bank's facilities/technical environment to ensure data sovereignty.

Important Note from BANK: Bank will not procure any separate application or component for parsing, decrypting or processing any of the network files.

Mylapay

Scope of Work in Detail

Acquiring Module Overview:

Mylapay's Acquiring Module, deployed in Bank's facilities/technical environment, will accommodate partner setup and process input files from the bank's PAs/TSPs with multiple BIN/ICA on dedicated or shared setups via SFTP.

It will interpret data from ISO/Clearing/Incoming reports, match outgoing clearing data with incoming settlement reports, calculate interchange and scheme fees at the transaction level, and generate network and partner-wise JV and TTUM files.

The system will produce necessary reports for Bank's daily settlements and operations, bifurcate the monthly scheme invoice, providing scheme, BIN, and partner-wise billing. Additionally, it generates FIRC reports, certificates for Merchants and PAs.

Technical Capabilities:

Support > File/data Parsing & Generation	Support > All TXN Types	Supports > Networks	BIN Environment
Raw switch txn - ISO msg from any switch	Sale	Visa	Acquiring
Clearing - outgoing files:	Reversals	MasterCard	Dedicated BIN/ICA
Visa – EP Out files / Rejections	Refunds	Rupay	Shared BIN/ICA
MasterCard - IPM files	Pre-auth	Amex	Scheme wise
Rupay - Xml files	Cash back	both DMS & SMS	Partner wise
Incoming Settlement Reports:	Fuel, surcharges	MoneySend	Settlement Cycle wise
Visa - IP (dom & Int) and ARDEF files	Restaurant Tip	Card-not-Present (PG)	
MasterCard - TT 140, TT112, T461, T464, T057, T058, & T067	Chargebacks, till pre-arb & arbitration	Card Present (POS)	
Rupay - All Acknowledgement, DSR, All dispute & BIN files	Any other scenarios		
Card network's Interchange fees & scheme invoices			
Generate JV/TTUM and any other reports specified by Bank			

Mylapay

Workflow Diagram:
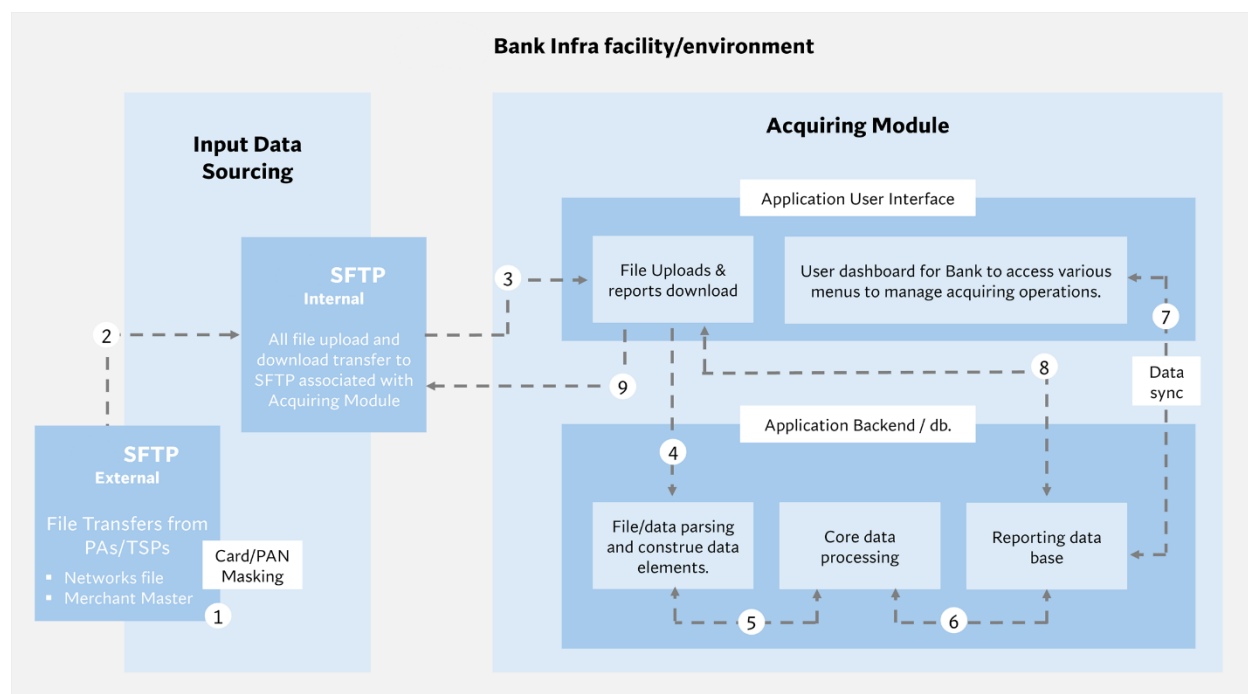
Sourcing Input Data Files:

Bank will provide the following input data/files from the respective sources (PAs/TSPs) in the Bank's external SFTP, where card/PAN masking activity will be carried out by an independent utility before moving the files to the Bank's internal SFTP associated with the Acquiring Module system to auto pick the files.

Data/Files	Source	Details of Files	Transfer Method & Location	Frequency
BIN/ICA/Partner list	Bank	Ref: Annexure 1	System configuration for BIN/Partner wise reporting	One-time/On-Accordance
JV/TTUM file format	Bank	Ref: Annexure 2	System configuration for JV/TTUM file generation	One-time/On-Accordance
Merchant Master	Bank	Ref: Annexure 2	File Trf to SFTP / API Call	Daily / Realtime
Card network files	TSPs	Ref: Annexure 3	File Trf to SFTP	Daily/Settlement Cycle
Scheme Invoices	Visa/MC	Ref: Annexure 4	File Trf to SFTP	Weekly/Monthly

Note: Bank to provide SFTP set up as per the structure described in Annexure 5.

Data Parsing:

This process involves data consumption, parsing ISO data elements, converting them into readable structures, storing, computing, analyzing, and reconciling to generate output reports.

Data Consumption	The Acquiring Module/System gathers all input data/files as specified in the "Sourcing Data File" section through SFTP/API calls. The system facilitates file uploads in the UI to fetch data, and the file manager utility ensures appropriate mapping of outgoing and incoming files for further processing.

Data Parsing and Storage	Once the input data/files are collected, the system parses ISO clearing data elements from the card network's outgoing clearing files and incoming settlement files from Visa, MasterCard, Rupay, and Amex. It stores the data in readable formats, further parsing every financial detail from the incoming settlement reports and structuring the data in financial statement formats with appropriate debit and credit entries.

Data Processing:

Post the data parsing activity where the data is stored in a cumulative table structure in the Acquiring Module, the system performs a series of processing activities to achieve the desired outcomes.

Currency & Settlement Conversion	The system applies the card network's provided forex exchange rates to each transaction, converting the settlement currency to INR to match the actual Incoming/Inward settlements.

Interchange & Scheme Fee Calculation	The system calculates interchange fees, GST, scheme fees, DCC markup, and exchange gains/losses at the transaction level to substantiate the financial line items in the JV/TTUM report and support the FIRC report and certificates.

Transaction Mapping & Financial Updates	The system updates necessary flags such as BIN/ICA/scheme/partner, transaction types/legs, and posts financial debits/credits against each transaction to generate reports with various bifurcations.

Merchant Validation	The system reconciles the merchant ID between the merchant master and the outgoing clearing files to validate and report deviations or anomalies.

TTUM Processing	Partner wise settlement TTUM will be processed based on the clearing files/BANK settled dump as per the Bank's requirement for early settlements.

Outgoing vs Incoming Reconciliation	The system reconciles each transaction in the outgoing clearing file with the incoming settlement reports, flagging transactions with reconciliation statuses such as "Reconciled / Return / Rejection / Amount Mismatch and any other remarks" along with the cycle and date of incoming settlement was received.

JV Processing	Based on the financial line items retrieved from the incoming settlement reports, the system prepares partner/client-wise JV reports with detailed bifurcation of sales, refunds, chargebacks, re-presentments, interchange fees, scheme fees, GST, and any other debits/credits, tallying to the net settlement.

Billing Process	The system consumes the scheme invoice from Visa/MasterCard on a weekly/monthly basis, validates the fee with the scheme fee provisioned at the transaction level, and generates BIN/ICA/partner-wise scheme invoices. It also calculates interchange, Bank's markup (configured in the system), and GST on settlement volume to automatically generate monthly invoices for the partners.

Output data > UI Menu/Screen > Reporting:

Acquiring Module will provide intuitive user dashboard for Bank to manage BIN/ICA/Partners/GLs and access BIN/ICA/Partner wise settlement and reports for seamless navigation of day-to-day acquiring operations.

Partner Configuration	This feature will allow Bank to add, remove, and update partners (PA/TSP) and the associated BIN/ICA/commercial arrangements for acquiring operations.

File Manager	This feature helps users seamlessly navigate card network files that are auto picked from the SFTP location, and further maps the outgoing and incoming reports with add, remove, move, and process options, along with logs.

Merchant Validation	This menu proactively displays unidentified Merchants/MIDs from the outgoing/incoming transactions processed by partners that are not registered or listed in Bank's merchant master.

Settlements/JV/TTUM Report	This menu provides partner timely TTUM files for Bank's Ops team to process early settlements and further provides scheme/partner/cycle wise JV reports to Bank for GL postings.

Mylapay

Bank Reports	This menu enables Bank to generate and download the following MIS/Business reports at any given daily, weekly, monthly, quarterly, or any selected date range frequency: a. MIS Reports, out sales report, chargeback report, presentment report, and rejection report (Visa/Rupay/MasterCard/Amex and Partner-wise). b. FETERs report. c. QMR/GOC. d. Fuel/Non-Fuel Data. e. FIRC Report. f. Monthly Network and Partner-wise Billing Report. g. Reconciliation of Interchange Fees at the transaction level. h. DCC Report (Partner-wise). i. Forex exchange rates from card networks. **Refer to Annexure 6**

Note: All the above reports will be automatically generated and placed in Bank's SFTP specified locations for Bank's consumption. Alternatively, the Acquiring Module's dashboard has an option to download all these reports at any given time.

Input data <> Output data/reports Frequency:

The following table explains the expected timeline/frequency in which the Acquiring Module receives the day-to-day input files and delivers the output reports.

Input Data/Files	Source	Frequency	Output Data/Reports	Destination	Frequency
Merchant Master	Bank	Daily	Merchant Validation	Bank (SFTP)	Daily
Card Network's Outgoing Clearing files	TSPs	T+1 before 06HRS	Settlement Summary / TTUM file	Bank (SFTP)	T+1 before 09HRS
Card Network's Incoming Settlement reports	TSPs	T+2 before 06HRS	Scheme/Cycle/Partner wise JV Reports	Bank (SFTP)	T+2 before 09HRS
Scheme Invoice	Visa/MC	Weekly / Monthly	Partner wise billing reports	Bank (SFTP)	Weekly / Monthly
The above inputs will be consumed to generate all other bank reports as required by Bank			All other Bank Reports	Bank (SFTP)	Bank to Confirm

Mylapay

Pre-requisites for Acquiring Module Deployment:

Bank expects the Acquiring Module product/application to be deployed in the bank's own infrastructure facility/environment. The following are the technical specifications for the infrastructure to be provided by Bank.

Compatibility
Compatible to any Cloud Environment: AWS/AZURE/Any other cloud environment
Compatible to On-Premises Infrastructure:

Application Server	
App Server OS:	
RAM:	
Disk Space:	
Processor:	

Software Requirements

Database Server	
DB Server OS:	
RAM:	
Disk Space:	
Processor:	

Note: This requires a separate discussion between Mylapay and Bank to understand the volume and preference of Bank for Mylapay to provide the above requirement.

System Readiness and Integration Timelines:

The following table information outlines the system readiness and tentative timelines for the deployment and integration of the Acquiring Module product/application.

Acquiring Module Functions	System Readiness	Deployment/Integration timeline
Data parsing and storage	Readily Available	Immediate
Core logic and processing	Readily Available	Immediate
App User Interface Screens	Screen Customization asper Bank's requirements	3-4 weeks for customization and deployment
MIS and Reports	Report structure customization as per Bank's requirements	

Note: The estimated time required for GTM is about 3-4 weeks. This period includes all the necessary steps for deployment and integration, as well as user acceptance testing, before the product becomes operational and available for Bank to use.

Mylapay

Technical and Operational Support:

Mylapay is committed to providing comprehensive technical and operational support to Bank, ensuring the assistance is available 24/7 all days around the clock. The support is designed to be flexible, offering technical and operational experts/professional from payment domain in both outsourcing and in-house on-premises model.

Function	Resources	Support
Technical Support	Technology experts/professionals with domain background / experience.	Managing the entire Acquiring Module application from technical front for any technical level changes, bug fixing, change requests, or any new changes or implementations from card networks, PAs, TSPs, or Bank to ensure that changes are implemented within the agreed and stipulated time frame to maintain business continuity.
Operational Support	Operational experts/professionals with domain background / experience.	Assisting Bank in managing the day-to-day acquiring payment operations associated with the Acquiring Module application to ensure that all activities and reporting are completed within the stipulated time frame, maintaining business continuity.
Resources Deployment Model	Feasible with both Outsourcing and In-house, On-premises models	
Availability	24/7 all days around the clock support	

Mylapay

Annexure 1
(BIN/ICA/Partner List)

Bank will provide the BIN/ICA/partner details in the table format below for one-time configuration in the Acquiring Module application. Dashboard access will be provided to Bank to manage any additions, removals, or updates through the application.

TSP Name	PA Name	Settlement Type	Card Scheme	BIN/ICA	BIN/ICA Type
xyz	xyz	Early/Regular	Visa/MC/Rupay/Amex	000123	Dedicated/Shared
abc	abc	Early/Regular	Visa/MC/Rupay/Amex	000124	Dedicated/Shared

Mylapay

Annexure 2
(JV/TTUM/Merchant Master File Formats)

Bank will provide the file formats and specifications listed in the tables below for configuration in the Acquiring Module.

File Name	Filel extension	Sample File
JV Report	Excel/Text/Delimiter/Etc.	Bank to provide
TTUM File (uploadable format)	Excel/Text/Delimiter/Etc.	Bank to provide
Merchant Master	Excel/Text/Delimiter/Etc.	Bank to provide

This document is private and confidential

Annexure 3
(Card Network Scheme Files)
(Clearing/Outgoing & Incoming Settlement Files)

Bank will provide the following files through its partners/TSPs according to the timelines specified in the 'Input Data <> Output Data/Reports Frequency' table.

Clearing - Outgoing Staging Files		
Visa	**MasterCard**	**Rupay**
SAVE.OUTGOING.ASCII.EPOUT_*.TXT	*.ipm	000*.xml
SAVE.OUTGOING.ASCII.REJECT.TRANS.TXT		

Incoming Settlement Files		
Visa	**MasterCard**	**Rupay**
*.~IP - Domestic	TT068T0*.*	01**.xml (all 4 cycles)
*.~IP - International	TT057T0*.*	02**.xml (all 4 cycles)
IP File - Both summary & detail	TT067T0*.*	03**.xml (all 4 cycles)
Currency File	TT112T0*.*	04**.xml (all 4 cycles)
EpArdefExt*.txt	TT140T0*.*	83**.xml (all 4 cycles)
	TT461T0*.*	DSRSummaryReport_*.xls (all 4 cycles)
	TT464T0*.*	All_Disputes.csv (all 4 cycles)
		81**.dat (all 4 cycles)

Mylapay

Annexure 4
(Card Network Scheme Invoices/Billing)

Bank will provide the scheme invoice sample and the file format required for billing the monthly scheme invoice to its partners. This will be configured in the Acquiring Module for automatic invoice/billing generation.

File Name	File extension	Sample File
Visa Invoice	PDF/Excel	Bank to provide
MC Invoice	PDF/Excel	Bank to provide
Partner Monthly Invoice	Excel	Bank to provide

This document is private and confidential

Annexure 5
(SFTP Folder Structure)

Bank will provide/set up SFTP folder structure for input/output file transfers for the day-to-day operations and MIS reporting.

Partners/TSPs to transfer the files to Bank's SFTP

Bank's SFTP

Associated with Partners

\MMM-YYYY\YYYY-MM-DD\Partner

\MMM-YYYY\YYYY-MM-DD\Partner1\OutgoingFiles\

\MMM-YYYY\YYYY-MM-DD\Partner1\IncomingFiles\

Card numbers/PAN will be automatically masked through a standalone utility

Masked files will be auto synced to SFTP linked with Acquiring Module.

Bank's SFTP

Associated with Acquiring Module Application

\MMM-YYYY\YYYY-MM-DD\Partner

\MMM-YYYY\YYYY-MM-DD\Partner1\OutgoingFiles\

\MMM-YYYY\YYYY-MM-DD\Partner1\IncomingFiles\

\MMM-YYYY\YYYY-MM-DD\Partner1\MerchantMaster\

\MMM-YYYY\YYYY-MM-DD\Partner1\TTUM\

\MMM-YYYY\YYYY-MM-DD\Partner1\UV\

\MMM-YYYY\YYYY-MM-DD\Partner1\MISReports\

This document is private and confidential

Annexure 6
(Bank Reports and MIS)

Bank will provide the sample file formats and specifications listed in the tables below for configuration in the Acquiring Module to generate the required daily reports and MIS.

Report/File Name	File Format (file .extn)	Frequency	Sample file
a. MIS Reports, out sales report, chargeback report, presentment report, and rejection report (Visa/Rupay/MasterCard/Amex and Partner-wise).	Specify the file extension required for each report	Specify the time frequency required for each report	Bank to provide file sample
b. FETERs report.			
/c. QMR/GOC.			
d. Fuel/Non-Fuel Data.			
e. FIRC Report.			
f. Monthly Network and Partner-wise Billing Report.			
g. Reconciliation of Interchange Fees at the transaction level.			
h. DCC Report (Partner-wise).			
i. Forex exchange rates from card networks.			

Mylapay