Alt-Pi Fintech Pvt. Ltd.	
System	**Bill Presentation and Payment System - Malaysia**
Date	**6ᵗʰ June 2024**
Version	**1.0**
Functional Specifications and Guidelines:	

Objective: To create a system to facilitate Bill Presentation of various Service Providers and its Payment.

Introduction:

Various organizations offer services to its customers and raise bills for the services offered. The organizations can be categorized into Utility companies like Telephone Service Providers, Internet Service Providers, Energy (Electricity) Service Providers, Co-op. Housing Societies, Commercial Organisations billing their customers on regular basis..

Alt-Pi (Principal – Tech Service Provider) will be a service provider for all kind of billers. The above mentioned organisations are **Billers (Party).**

They have their **Customers (End Users)** who avail the services and make payments through the application provided by us on the Browser / Mobile App.

Partner-Bank this is the banking partner Alt-Pi signs up with and it facilitates collection of the Bill Payment of the various Billers from the Customers. This provides us the connectivity to the required switch for receiving payments and crediting relevant bank accounts.

The Operational Flow of the System

1. Alt-Pi ties up with the Partner Bank.
2. Alt-Pi On-boards the Biller
3. The Biller details are captured. This includes the Organisation Name, address, Contact details (including email, phone numbers), Contact Person details, Its Bank Details, Billing Cycle, etc.
4. We also capture the Category of the Biller which helps us to capture the Bill Details.
5. We have a Cross Reference Integration file which has the following data:
    a. Biller Code
    b. Partner Bank Code
    c. Switch Code
    d. Pay Authority Code (Central Bank, Duit , etc.)
       (These are indicative fields and we may add some more fields to this table).

6. We register the Customer (End-User)
    a. The details collected are as follows:
    b. Name, Email id, Mobile Number, Password.

        The first time the customer registers we send an OTP to him for validating and allowing him to register. He is then allowed to create a password. He will use the password for accessing the billing details due to him.

        After this we will use the OTP only when the customer wants to change the password.

7. We also create Cross-Reference file of the Customer and the Biller (Customer_Biller). It will have following information.
    a. Customer_Id (It will come from the above table)
    b. Biller_Id
    c. Biller_Customer_Account_Number. (This is essentially the Customer A/C number associated with that particular Customer for the services he is billed for.)
    d. There can be multiple records for that particular Customer but will have different Billers and may have the same Biller id but different Customer Account numbers.

8. Depending on the frequency of the Billing company, the bill file will get populated.
    a. The source of generation of Bill file can be defined separately
    b. A File is provided by the Biller as per defined frequency
    c. An API provided by the Biller which gives access to the Bill details as desired by the Customer. This is on-line fetching of the Bill as on that date.
    d. They can also provide paper-bill (Currently we are excluding this from the system)

9. **Agent-Biller** - We will also have an Agent who can introduce us the Biller. The Commission which we receive from that particular Biller will have to be shared with the Agent.

10. **Agent-Customer** - We will have another type of agent who may act as a service provider to us to collect from the Customers (End-users).

11. The customer may not like to save his billing details, as he may make payments for someone else. Before saving the Customer – Biller information we may ask the user , whether we want to save the details and then only populate the Customer_Biller file.

12. **Payment Methods** – The Payment Methods can be Duuit (QR Code), Bank Transfer, Credit & Debit Cards.

13. **Biller_Bill** – This will have bill details of the Biller which will essentially have Biller_Code, Customer_Account_No, Bill_Date, Bill_No, Bill_Amount, Other_Charges, Pending_Due, Total_Amount_Due, Paid Amount, Paid Date, Paid Indicator, etc. The other details may or may not be there depending on the category of the Biller. The above fields are mandatory.

14. **Payment_Transaction** – (This is same as Ch_Txn).