



TRADEROOT AFRICA  
CIBL

***Universal  
Issuing Platform***

A General Overview





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# *Executive Summary*

## 1.1. Introduction

This document describes Traderoot's Universal Issuing Platform (UIP), and forms a basis for discussion for CIBL requirement to support money transfer (remittance processing), mobile and WEB based banking using acceptable industry standards.

## 1.2. UIP Overview



Traderoot's Universal Issuing Platform (UIP) is a comprehensive, end-to-end issuing platform, which manages accounts and their associated payment tokens, being magnetic stripe cards or smart cards.

UIP can be integrated with existing banking infrastructure with minimal efforts.

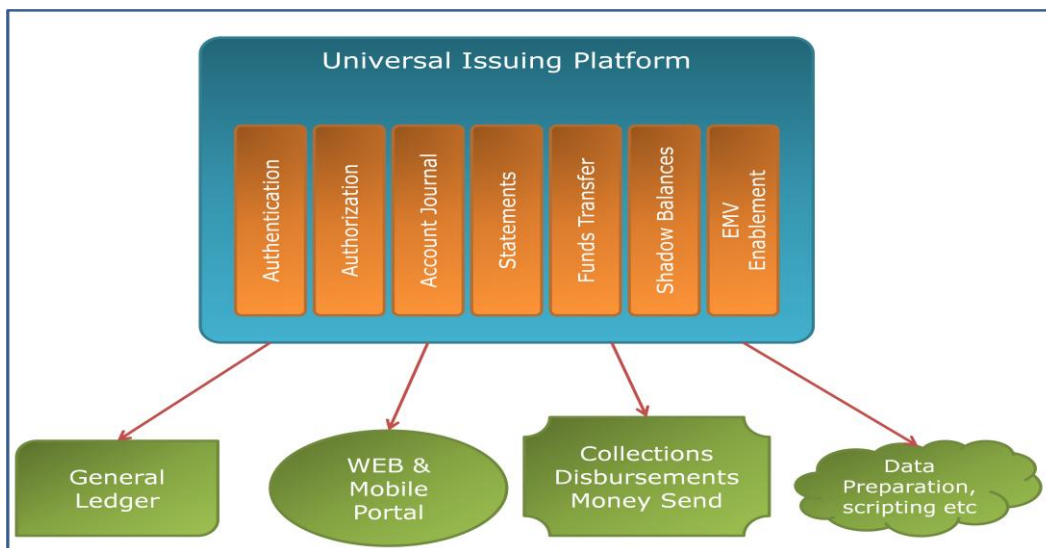
Once deployed the Universal Issuing Platform allows for the:

- opening of normal and prepaid accounts,
- provision of web and mobile portals for customers to see account information, allow for account funding and the ability to send and receive money (remittances).
- issuance of:
  - ◆ magnetic stripe based, online authorised prepaid cards, and
  - ◆ smart card based, online and/or offline authorised prepaid cards,



- management of funds for online only authorised prepaid cards,
- management of funds for offline authorised prepaid cards, including on-card balances (including contactless products),
- authorisation of transactions, including EMV data validation,
- processing of clearing and settlement of all transactions,
- provision of interfaces to the banks general ledger system for treasury management and reporting, and

The following diagram illustrates a typical UIP architecture:-



### 1.3. UIP Functionality



Traderoot's Universal Issuing Platform includes a fully fledged issuing system, responsible for managing member accounts on behalf of issuers such as banks, loyalty schemes, insurance companies and financial services companies.

The issuing system processes financial transactions according to member profiles and manages credit and debit accounts and payment tokens. The Issuing System, together with other modules, performs card management and authentication. The system can be interfaced with legacy financial and treasury systems via batch or on-line interfaces.

Features of the Issuing System module include:-

- support for on-line financial protocols such as ISO8583, BICISO for BASE 24, Visa (Base I) and MasterCard (authorization and settlement) and IFX,



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- support for batch financial protocols such as Visa Base II, MasterCard IPM (Integrated Product Messages); PACS, ACH, NACHA, AEDOS, NAEDOS, AVS,
  - support for Visa and MasterCard debit card and credit card issuing standards,
  - support for American Express charge card standards,
  - support for PayPass and PayWave standards,
  - support for Visa Pin Verification Value (PVV) standards,
  - central server for:
    - ◆ on-line account with deposit (awards), withdrawal (redemption) and balance enquiry requests,
    - ◆ money transfers,
    - ◆ account balance management,
    - ◆ card / token management and associated authentication validation,
    - ◆ procurement pre-authorization,
    - ◆ impress accounts with lodged external financial instruments such as bank accounts or formal lodge cards with automatic settlement to and from these financial instruments,
    - ◆ member funds repository information on behalf of an Issuer.
  - relationship and member, account and card-holder profile management,
  - rule-based issuer transaction authorisation, with authorisation rules for specific merchants or Merchant Category Codes,
  - maintains multiple network gateways for authorisation,
  - transaction validation, card/token authentication and PIN change request,
  - virtual and physical card issuing and card management to member's accounts which support both "Early binding" and "Late binding",
  - supports "card per use" or "pre-paid card" issuing,
  - supports source and BIN based validation for not-on-us issuing,
  - manages account-centric information with translation into lodge cards or accounts,
  - supports multiple ISO currency codes and time-zones, and
  - maintains a complete transaction audit trail.

The issuing system module consists of external interfaces and internal components:



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- **Issuing Switch Client Connection:** the client connection provides an interface for funding business entities to authorise and settle advice requests based on configured business rules,
  - **Authentication Service:** the authentication service communicates with the Crypto Server to validate PINs,
  - **Authorisation Service:** the authorisation service keeps track and maintains the automatic or manual acceptance or authorization for settlement of financial transactions by a business entity,
  - **Account Journal Service:** this service maintains the balances of all accounts in the system and provides for interest and fee charges, deferred deposits or batch settlement (inward flow from external financial systems,
  - **Statement Service:** The statement service generates statements which contain level 1 and level 2 data. These statements form the basis of on-line MIS or statement reports,
  - **Funds Transfer Service:** this service performs debit order processing using configured dated values and amounts configured for the account. Alternatively, it can be flagged per account to collect from or credit to internal accounts (within the issuing application) or external homing accounts. The transfer service is capable of rolling up ("netting") before transfer;
  - **Treasury Module:** this module delivers Financial Relations Management to i.e. Buyers, Suppliers, Debtors/Creditors for Importing of source financial documents or events and delivers disbursement allocations, calculations of fees and interest and Period calculations of statement of accounts, using a scheme controllable business rules meta-base.

Furthermore, it administers current and future payment obligations such as collections and/or settlements and generation of financial documents i.e. invoices, remittance advices, settlement advices. Finally it provides for aggregation to the standard general ledger or financial system of choice.

