

**Blockchain with Dragonfly** 



### The Transaction Ecosystem

- Banking systems use a ledger system to manage transactions between accounts. These
  ledger systems are run using a database solution. The advent of Block Chain technology
  gave rise to a more enhanced solution that provides functionality to more than just a
  ledger system. Dragonfly has created a block chain solution named Transaction
  Ecosystem Platform Solution (TEPS). TEPS encompasses the following as one
  integrated holistic solution:
  - Automated Clearing and E-Settlement (ACES), a local and international interbank payment settlement solution
  - Block Chain ATM and Internet Banking (BCAIB) A method of transforming cash into digital money stored in an electronic wallet
  - Channel delivery APIs (CDAPI) Mobile e-wallet and payments, POS integration, Web-based wallet
  - Digital Money Exchange (DIMONEX) for carrying out the exchange for Foreign exchange of digital money (under development)

#### The ABCD of TEPS

### Offerings in brief

- A. The core engine of TEPS is a settlement platform (Automated Clearing and E-Settlement ACES):
  - Facilitate transfer of digital money via one layer (national settlement) or two layers (regional/global settlement) of settlements
  - Allow participating financial institutions to be integrated into the settlement system
  - Alternatively, a standalone ledger system for inter-branch settlements
- B. Allowing ATM machines to be used as dispensing machines for digital money through Block Chain ATM and Internet Banking solution (BCAIB):
  - Making digital money more pervasive
  - Reducing costs of physical cash distribution
- C. Integration using the Channel delivery APIs (CDAPI), a middleware API set in the TEPS for:
  - Mobile e-wallet and payments
  - POS integration
  - Web-based wallet
  - Banking solutions, analytics, compliance and governance integration
- D. A platform for digital money exchange (Digital Money Exchange (DIMONEX) for:
  - carrying out foreign exchange of digital money (under development)



# ACES



## International Settlement Comparison – Traditional Settlement House vs. ACES

RTGS Funding

eradicated

#### **Traditional**

FX Trade **Participating Participating** Member Agreed Member SWIFT Payment Instruction SWIFT Payment Instruction Payment instructions matched Payment instructions kept on records until settlement date Payment instructions settled on settlement date (end of contractual obligation). RTGS Funding Monetary exchanged between Members directly or via Nostro accounts

**ACES** 

**Participating Participating** Member Member **ACES Platform** Escrow Deposit (Just in Time – JIT) FX Trade Agreed Digital money exchanged. DM in, end of contractual obligation Built-in RTGS, no SWFT Messaging, volatility managed, settlement finality, costs

reduced, time reduced, resources reduced, compliance complexity reduced,

counterparty risks reduced, treasury management simplified, settlements are real

time and no batching, no settlement gridlocks, network always on, In/Out Swaps

## BCAIB

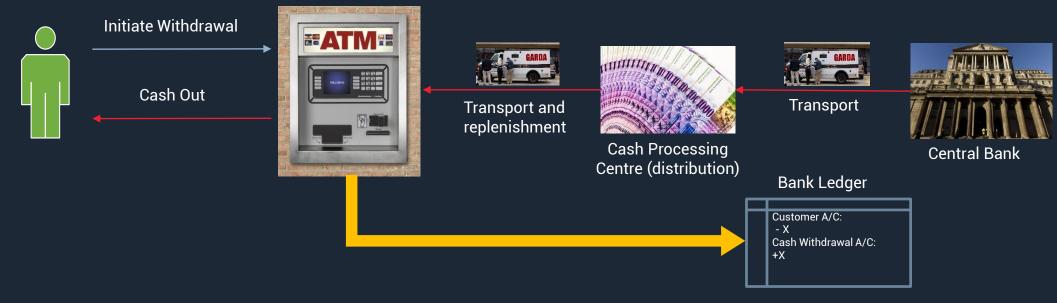


#### **BCAIB Value Proposition Statement**

BCAIB will transform the utilization of ATMs today by simplifying the withdrawal process with improvements in cost, cash flow, cycle time and security for banks while providing their customers with a safer and efficient ATM experience through the implementation of Block Chain ATM and Internet Banking



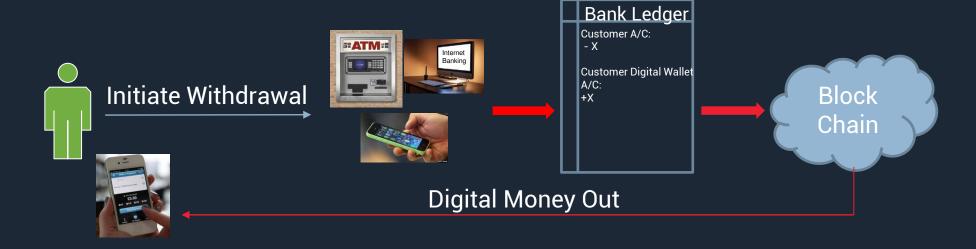
## Traditional ATM Banking – Existing Cash Infrastructure for Withdrawal



- Cash logistics management, e.g. armoured trucks
- Bank's reserve reduces
- ATM exposure to theft
- Robbery during cash transport
- Tedious cash management procedures and checks
- Cash flow management is inefficient



### Block Chain ATM and Internet Banking Reduced Cash Infrastructure



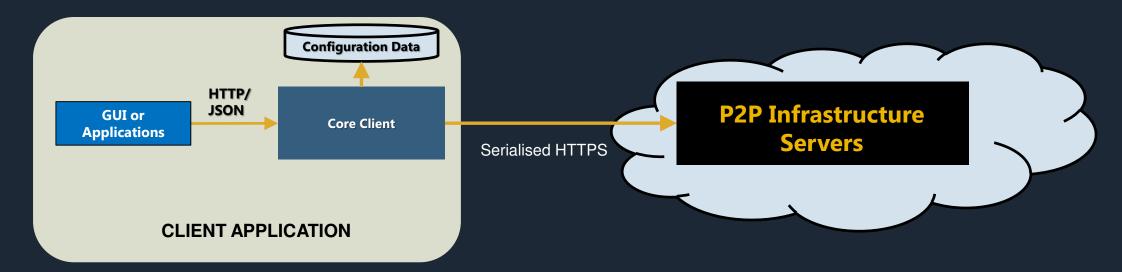
- No Cash logistics
- Reserves won't reduce until converted
- ATM is cashless
- Reduced ATM capital cost (less robust)
- No cash handling

- No robbery and theft exposure
- No Cash flow management
- Centralised operations
- Money becomes electronic balances



### CDAPI

#### **CDAPI** Architecture

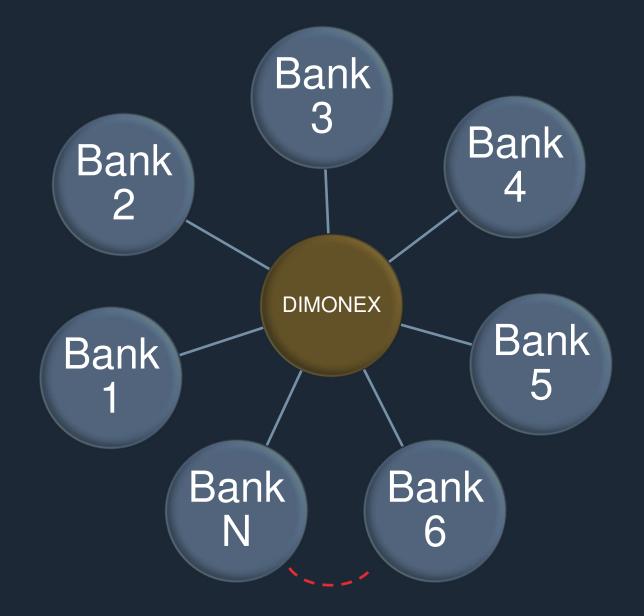


- Based on industry standard web architecture
- Full set of commands to:
  - Sign/approve transactions
  - Verify balances
  - Initiate a transaction
  - Query transactions
  - Look up transaction history
  - Create accounts
  - Configure settings



### DIMONEX

### DIMONEX – Digital Money Exchange



### PLATFORM ARCHITECTURE



#### **TEPS**

Digital Money Central System **Providers** DiMonEx Banks Integrators Issuer **TEPS** Technology **Platform** Ecosystem Primary Liquidity Nostros Participants Provider **Participant** Secondary Participant

### Ecosystem Players on TEPS

**TEPS** 

Platform as a service solution

**Settlement Institutions** 

Financial Institutions and central banks. 2-tiered, local and International Settlements

Participating Institutions

Banks, wholesalers, etc.

Service Providers

Licensed agents, postpaid, prepaid, mobile payment providers, virtual banks, etc.

Users

Merchants, Corporate, Individuals, Governments, etc.