New Interface Protocol to connect Multiple Bank Network from Single Outlet

Paradigm towards shared Branch Banking

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INTRODUCTION

- Branches drive majority of a Bank's transactions.
- High cost of per transaction for the Bank.
- Single window outlet for operation on multiple banks.
- New paradigm in banking.
- De-leveraging from infrastructure development and its costs.

Existing System

1. Several branches across the country.
2. Limited reach of eBanking and mBanking.
3. One branch-One bank system.
4. Slow adaption of technology by both consumers and banks.

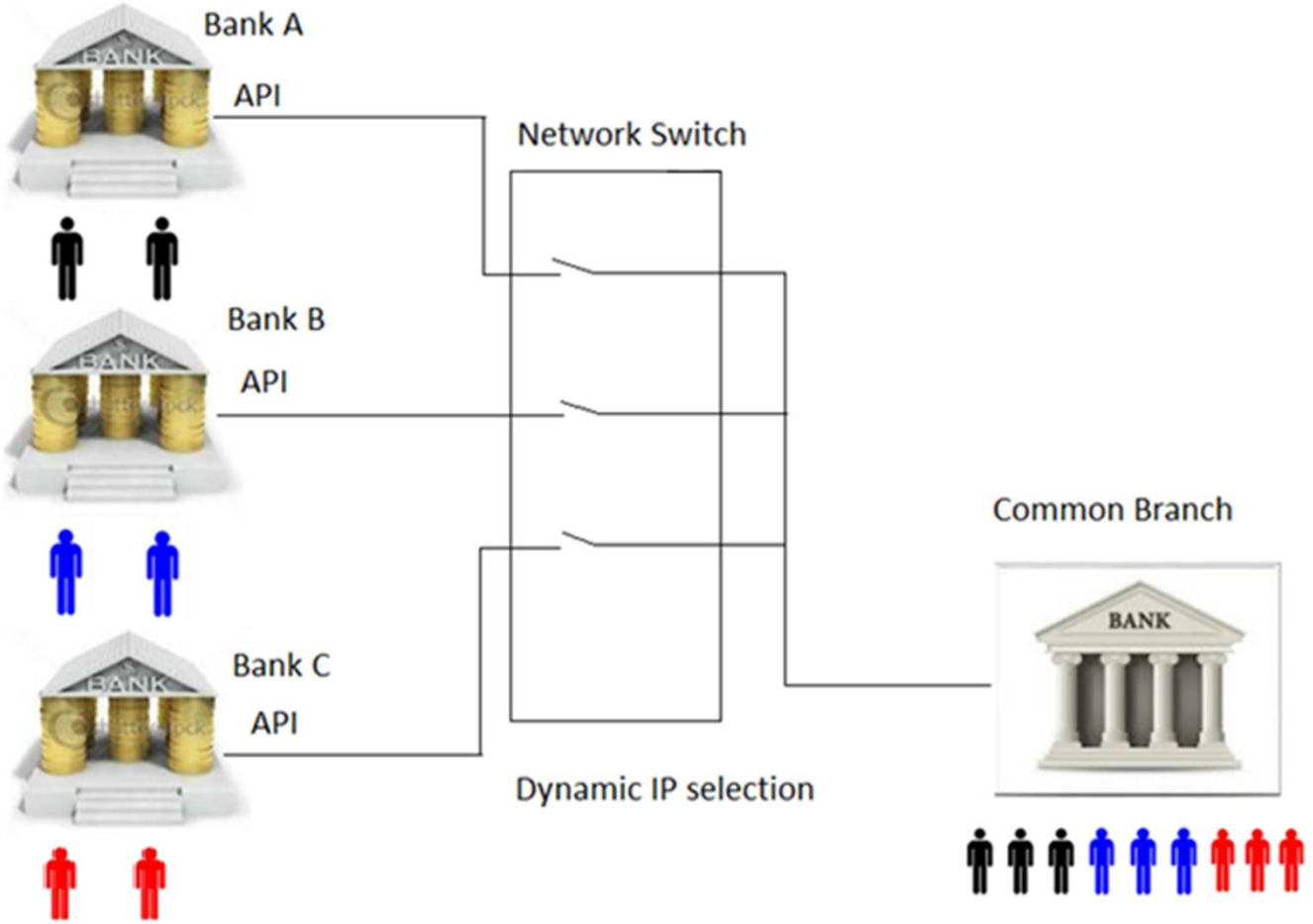
Disadvantages of Current System

- Cost of starting and operating branches is huge.
- Reach of eBanking and mBanking is limited.
- High installation and operating costs of ATMs.
- mATMs are dependent on external agents.

Proposed Model

- Operated by external agency, independent body, consortium of banks or government institute.
- Merging of branches of different banks and single window outlet.
- Different from “Agent Banking”.

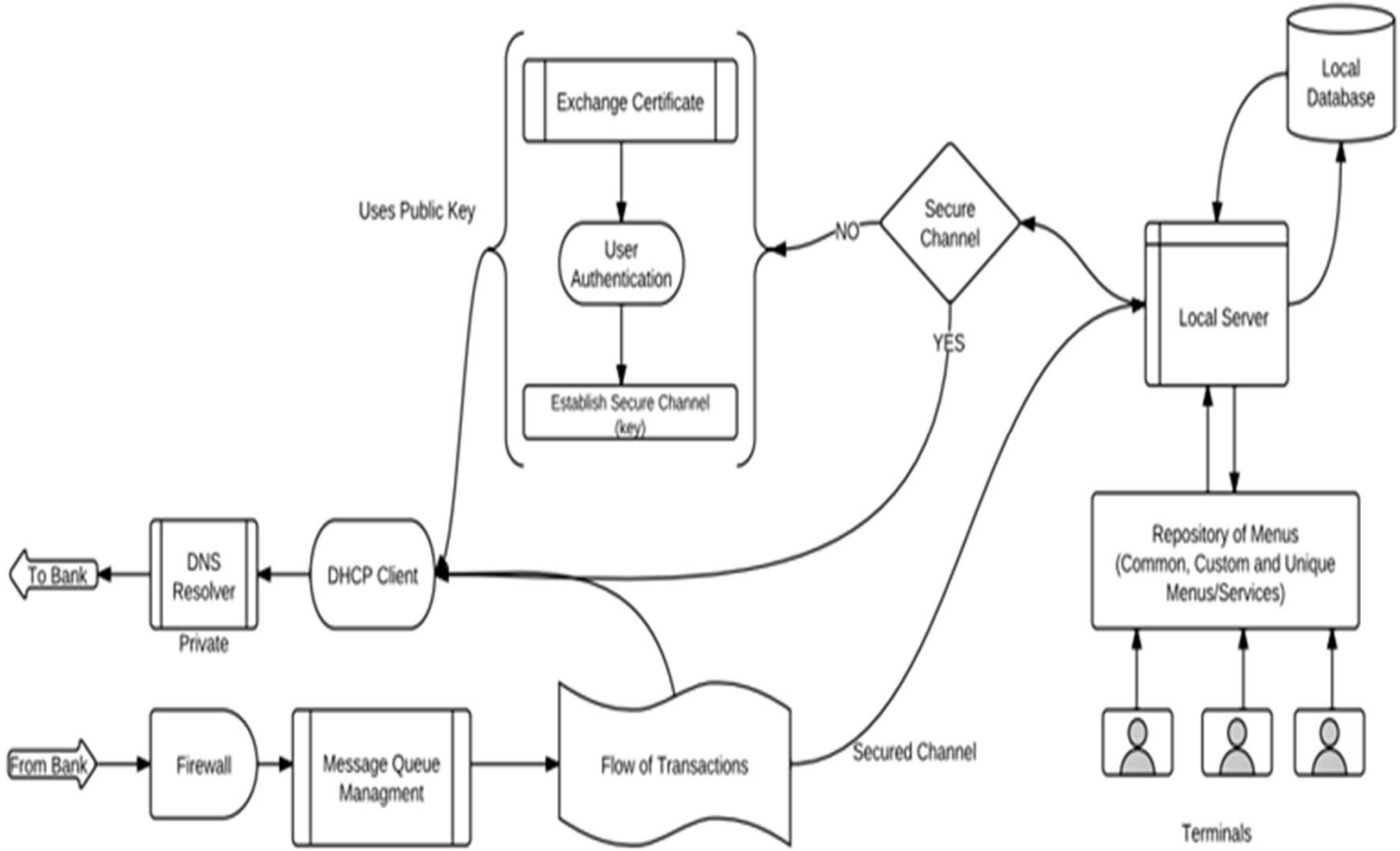
The shared infrastructure.



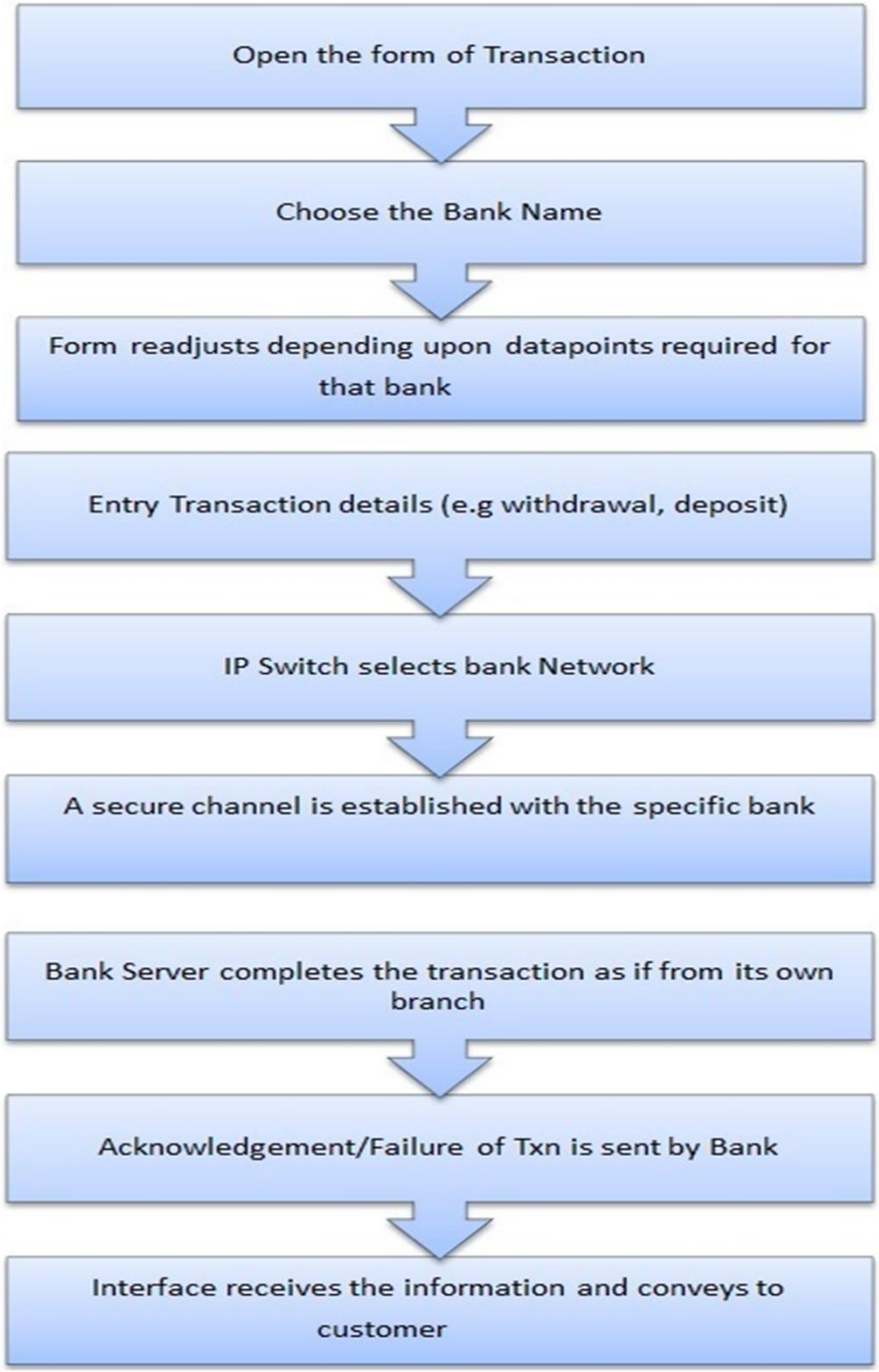
Architecture

- EBICS – Transmission Protocol
- SEPA – Clearing Protocol
- FIX – Communications Protocol
- SWIFT – Network Protocol.
- Proposed Model - ‘Infrastructure Protocol’.
- API from banks can be harnessed and coalesced to form single form.

Block diagram of the proposed model



FLOW


Open the form of Transaction
Choose the Bank Name
Form readjusts depending upon datapoints required for that bank
Entry Transaction details (e.g withdrawal, deposit)
IP Switch selects bank Network
A secure channel is established with the specific bank
Bank Server completes the transaction as if from its own branch
Acknowledgement/Failure of Txn is sent by Bank
Interface receives the information and conveys to customer

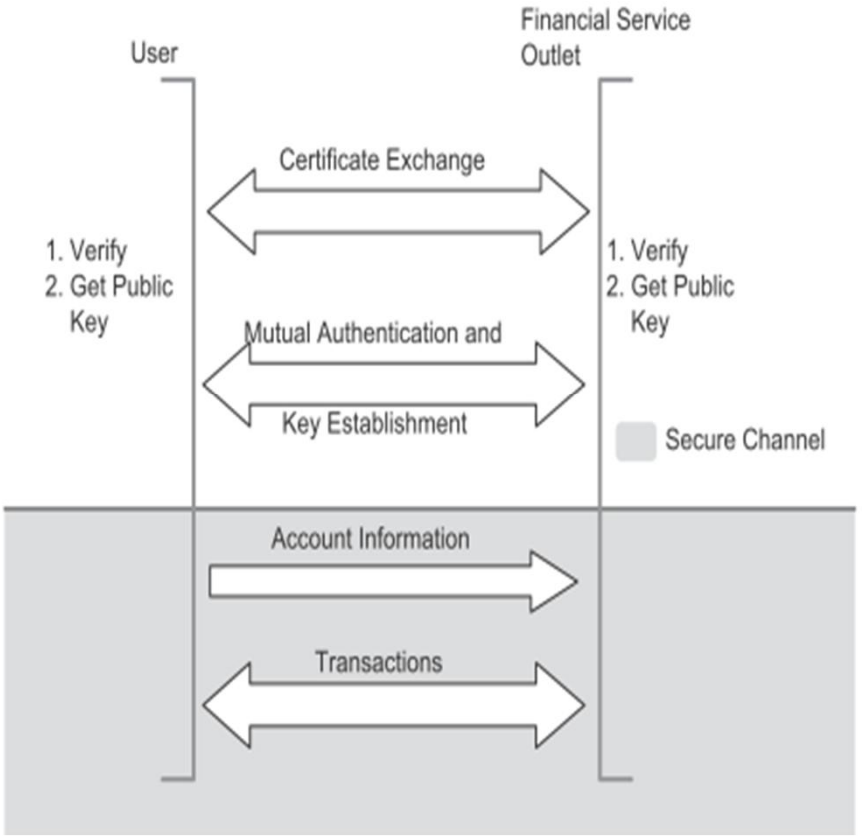
Features of Protocol

1. Network Switch
   - API for dynamically switching the networks.
   - Can use NaaS and IaaS to scale up using the Cloud offering.
   - Network API can run on multiple clusters and different networks.

Features of Protocol

2. Security

- Security can never be compromised.
- Proposed model implements ‘Low Cost secure transaction model’ introduced by Munjal et al.



Features of Protocol

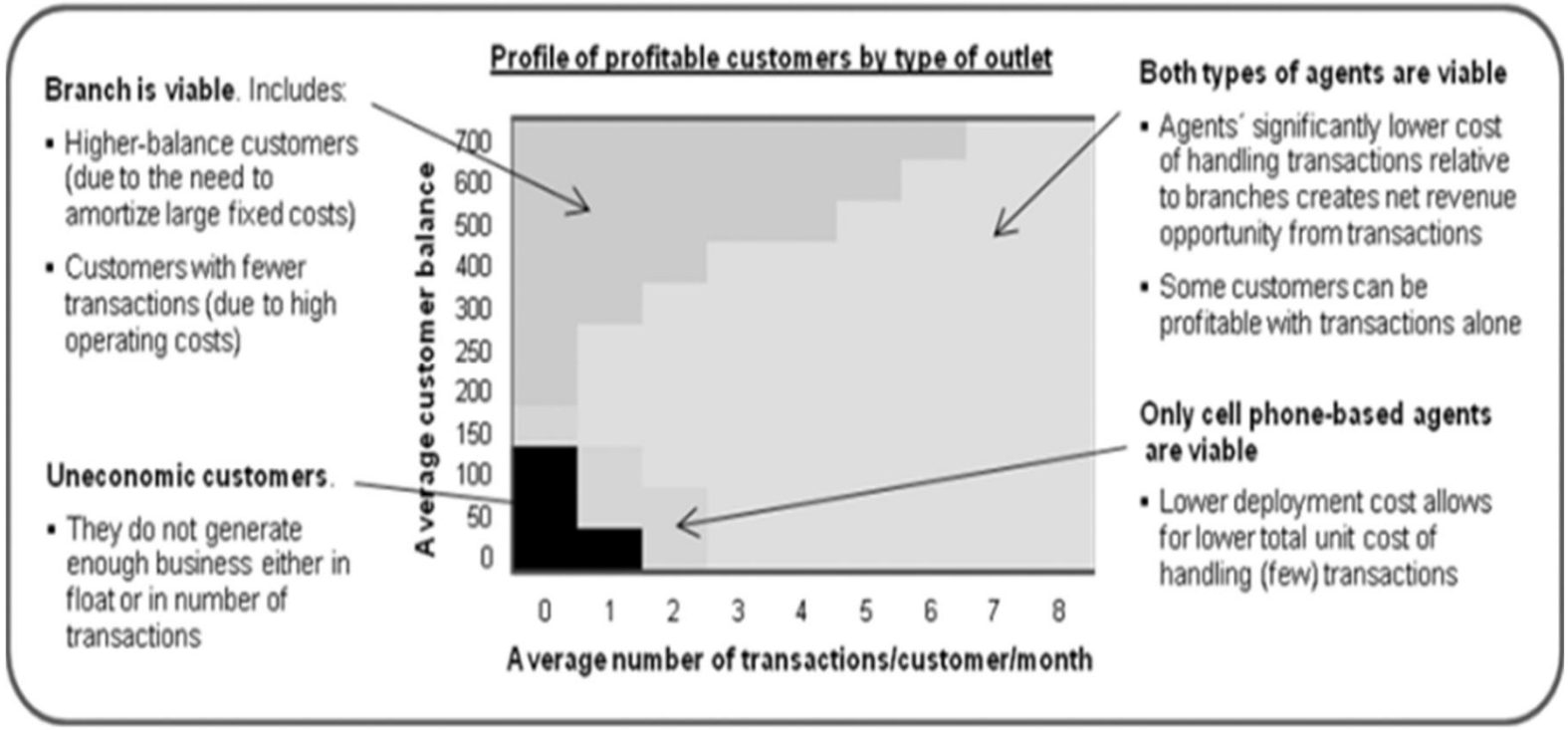
3. Set up and Trust

- Third party, a cooperative society, NGOs, a consortium of banks or a government body.
- Has to sign a ‘Memoranda of Understanding’ and need to provide financial backing and security.

New Paradigms

- Renders the visible structural part of the bank to minimal.
- Moving away from infrastructure of branches.
- Allows focus on providing innovative banking products and better services.

New Paradigms:Viability of Branches

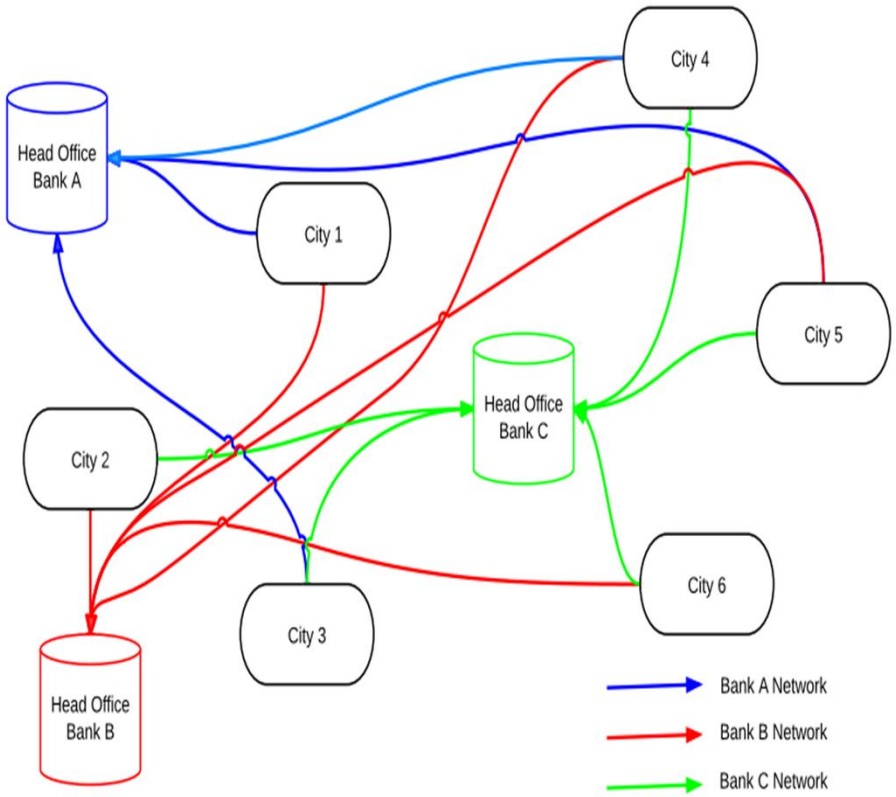


Benefits

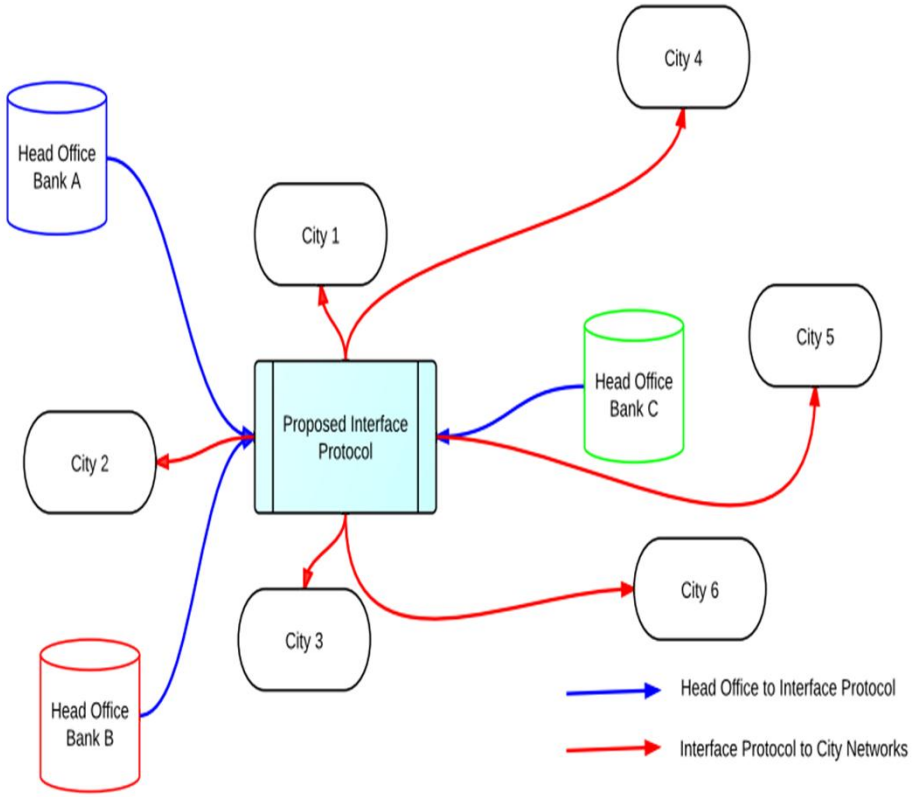
- Reduction in cost.
- Reduction in competition at infrastructure level.
- Scalable Model.
- Reach and Nominal Branches.

Comparison

- Existing Network Model



Proposed network Model



Issues and further enhancements

- Acceptance to the model.
- More layers of security can be introduced.
- More strict policy in terms of liquidity management.
- ‘Interoperability of interbank customer accounts’ and seamless multibank transactions.
- Interbank liquidity management.

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