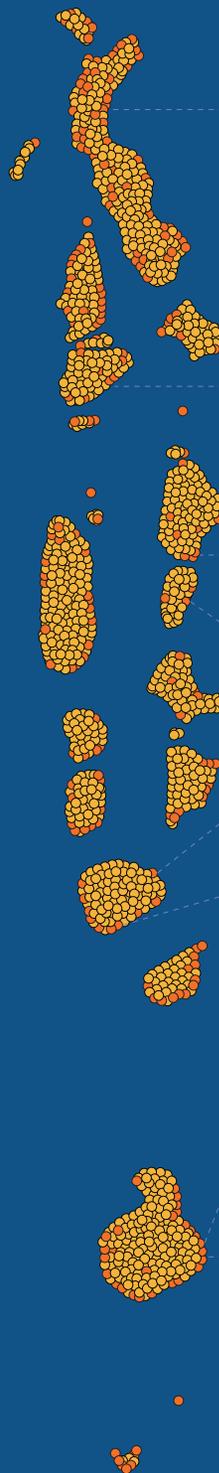


INSTANT PAYMENTS FOR THE MALDIVES

The future of Maldivian
payments system



SELF-SERVICE TERMINALS
inhabited islands and resorts for payment
services and Know-Your-Customer

SOLUTION FOR TOURISTS
Tourists will be able to use local
payments scheme using international
cards

INTEGRATED SOLUTION
All types of regular payments such as
utility bills, rent and recurring government
fees can be paid through this solution

FINANCIAL INCLUSION
All Maldivians will be able to
send and receive money instantly

DIGITAL SOLUTION
All inclusive mobile payments solution to
all islands.

WHOLESALE PAYMENTS
An alternative electronic solution for cheques,
especially for large value payments



188 Inhabited islands
128 Resort islands
400k Population

The Maldives is an archipelago consisting of more than 1200 islands strewn across the Indian Ocean, best known for its white beaches and pristine waters. Just under 200 of these islands are inhabited by a total population of around 400,000 people. Fishing was traditionally the key sector, and although it still provides a livelihood for a significant share of the people in outer islands, tourism is by far the dominant sector in the Maldivian economy today.

INSTANT PAYMENTS FOR THE MALDIVES

The Maldives Monetary Authority (MMA) is leading a three-phase initiative to transform the payments landscape in the Maldives to enable simple, fast and secure payments. The primary objective of the project is to ensure that users are able to make and receive payments instantly irrespective of the island they live on or where they bank. With the rapid modernization of the Maldivian economy, we are becoming increasingly interconnected both within and across networks. While the greater degree of connectivity has the potential to allow payment solutions to also become more automated and integrated, appropriate infrastructure development is required to capitalize upon this transition and cater to the future developments in the economy.

Maldivians will be able to make and receive payments instantly irrespective of the island they live on or where they bank.

All inclusive instant payments system is fast, easy to use, open and safe, promotes innovation and delivers better services to Maldivians

FAST

- All Maldivians, including the unbanked, will be able to send and receive money instantly regardless of the island they live or payment solution they use.
- Transactions will be transparent, with rich and informative messages for both payers and payees, and will receive instantly.
- End users will have access to funds in real time.

EASY

- The process of making payments will be more flexible and modular.
- Identifiers, such as ID cards, emails, phone numbers and fingerprints can be used to execute payments.
- The simple account to account instant payment system will enable innovation and support a greater customer experience for Maldivians.
- Introduce easy to use and cost-effective digital and integrated payments solutions to eliminate cheques and reduce the level of cash in circulation.

OPEN

- Payment service providers will have access to the account-to-account domestic payments scheme, thus enabling digital and integrated payments services.
- Open APIs and rich transaction information will promote data driven innovation and new value propositions.
- The flexible and open system will invite new business models, business strategies and technologies.
- Introduce two types of players in the Maldives payment space; Account Information Provider and Payment Service Provider, which will promote competition and innovative payment solutions .

SAFE

- Payments regulations will be developed as the payments system continues to evolve to ensure that the users and regulators have a high level of confidence in the payments system.
- Standardized, automated processes and real-time processing minimizes cost and risk.
- System errors will be minimized and fraud will be resolved quickly, especially at the early stages.

CURRENT LANDSCAPE

The development of the financial sector and payments services in the Maldives is challenged by the geographical nature of the country and the small size of the economy. Despite 85 percent of the adult population being bank account holders, there are significant hurdles to access financial and payment services. While the provision of payment services are dominated by the banking industry, the limited access to banking facilities for segments of the population living in smaller, more isolated islands have led to a high reliance on cash for transactions.

THE FINANCIAL SECTOR

The financial sector of the Maldives is dominated by the commercial banking sector. Currently, there are eight banks in the Maldives, of which two are locally incorporated. A single bank dominates the retail banking segment, with approximately 75 percent of bank account holdings and over 80 percent of the retail payment transactions, along with key payments infrastructure. The rest of the financial sector is comprised of five insurance companies and two other finance companies which cater to the leasing and housing finance markets as well as the stock exchange. The lack of an ideal level of competition and the shallowness of financial markets are challenges to the development of both the financial sector and the payments ecosystem.,



8 COMMERCIAL BANKS



5 INSURANCE COMPANIES



52 BANK BRANCHES



120 ATMs



7037 POS TERMINALS

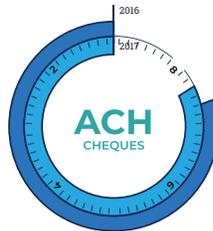


100% MOBILE COVERAGE

PAYMENTS INFRASTRUCTURE

Currently, all inter-bank transactions are executed via the Maldives Real Time Gross Settlement (MRTGS) system and the Automated Clearing House (ACH) system, which are both operated by the Maldives Monetary Authority. The MRTGS system processes and settles urgent, high value inter-bank transactions, and is based on the SWIFT messaging standard. Meanwhile, the ACH system is a session-based clearing system for low-value batch transactions consisting of three components, namely, direct credits, direct debits, cheque imaging and truncation. However, only the direct credit, cheque imaging and truncation components of the ACH system are currently in operation.

Currently the participants of the MRTGS and ACH systems are the banks operating in the Maldives, and the services are only available through them during banking hours, and mostly by visiting the banks in person. However, as these systems are not fully integrated with some of the participating banks' internal core banking systems, straight-through processing has still not been achieved, which leads to inefficiencies and delays even with the MRTGS system.

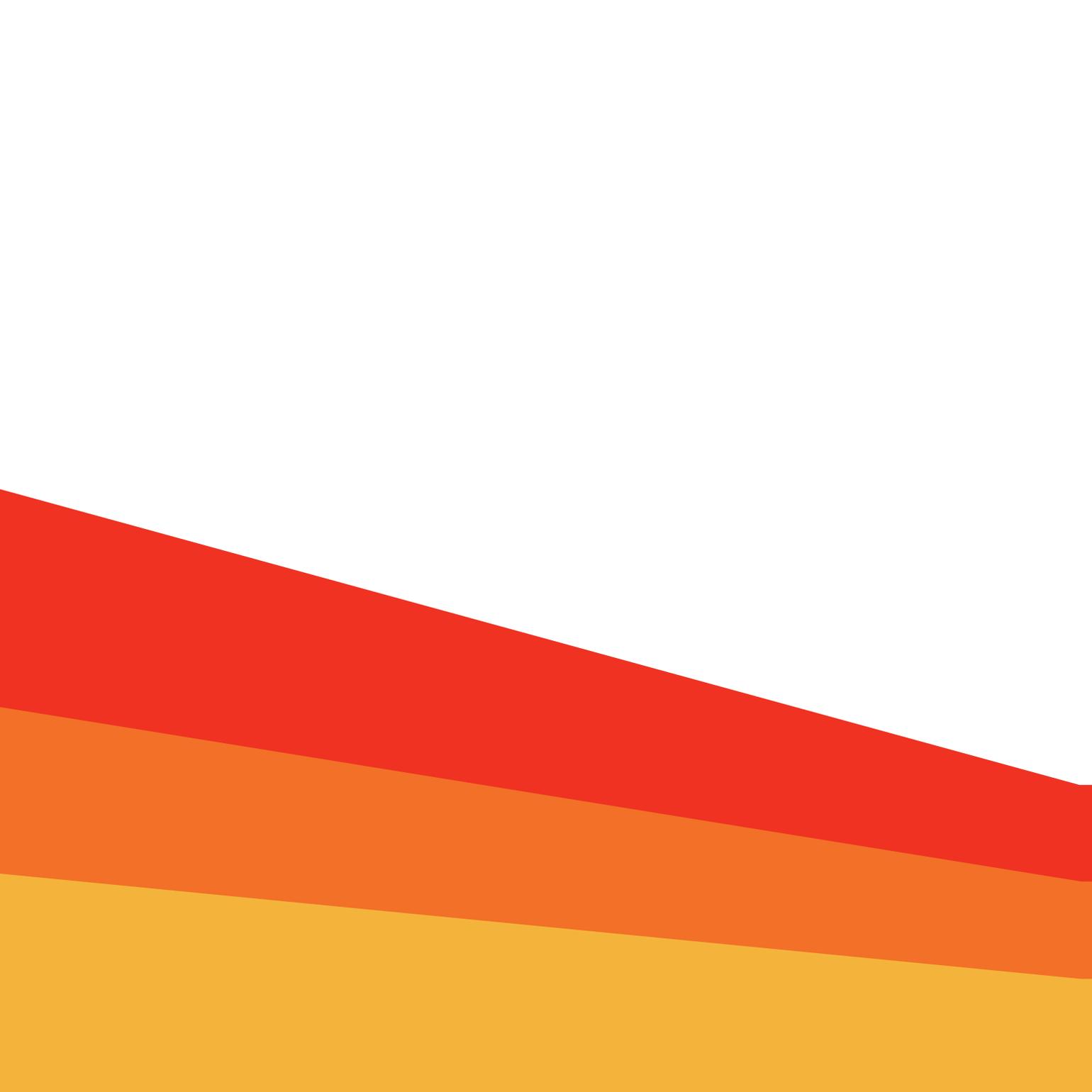


(in hundreds of thousands)

PAYMENT SERVICES

Card payments have become increasingly popular over the years, and are the most prominent electronic means of payment in the Maldives. Non-bank card payment acquirers play an important role, and hold a share of over 50 percent of the total value of credit card transactions in the economy. Presently in the absence of a local card payment switch, the payments via these non-bank players are sent to offshore banks.

In order to mitigate difficulties arising from the spatial orientation of the islands in the Maldives a recent initiative has been the introduction of mobile banking and payment services. With full mobile service coverage across the country and a high penetration of mobile phones within the population, payment solutions that utilize the mobile telecommunications network have the potential to reduce the prevalence of cash in the economy. However, mobile operators are faced with challenges in linking their services with the banks due to an absence of a common platform that connects the banks and mobile payment service providers. Additionally as the efficiency of such solutions is dependent on the underlying payments system infrastructure, the delays in settlement and other inefficiencies remain unresolved.



PROJECT

The payments system development project is a multi-phase initiative by the MMA to address key needs of the Maldivian economy. Increasing the end-to-end speed of payments while ensuring the efficiency and safety of the payments system is given primary importance. With the future of payments in mind, the system will be open and flexible to accommodate and foster innovation and competition in the Maldivian payments space.

1. INFRASTRUCTURE

The core of the infrastructure will be an open API based modular system that comprise of an account-based, real-time payments system augmented with the functionality of smart addressing. All banks in the Maldives will be directly linked to the system. It will support seamless integrated solutions combining the payment process and provide convenient, and value added solutions.

BANKS All commercial banks in the Maldives will be connected to the system. They will all contribute to and jointly function as account information service providers. Banks can be both Account information provider and Payments Service Provider. In future only banks can be account information provider or deposit holder.

INFRASTRUCTURE



UNIFIED PAYMENT GATEWAY (UPG)

UPG facilitates Account Information Service Providers to provide account information through the gateway to Payment Service Providers based on set of system rules that are in line with the legal framework. UPG enables the customers to view and manage multiple bank accounts through a single interface, consolidating various banking features including seamless fund routing & merchant payments. The UPG will include an access layer and a shared service layer.



SMART ADDRESSING

Smart addressing will allow customers to make payments using easy to remember tokens, such as national identification numbers, mobile numbers, email addresses and social media handles.



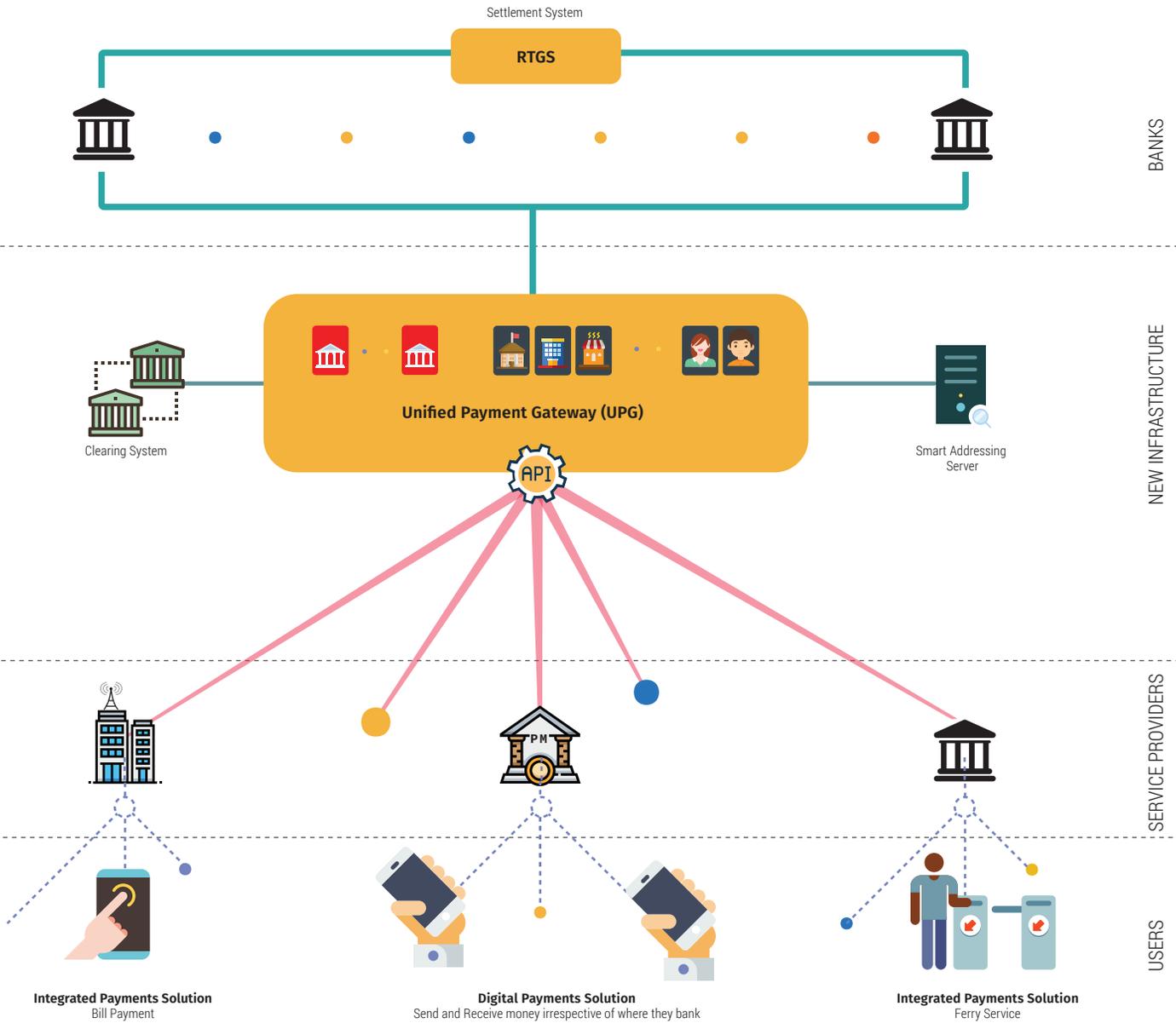
CLEARING SYSTEM

Clearing service allows real-time multilateral clearing of transaction between Account Information Service Providers.

PAYMENTS SERVICE PROVIDERS Payment service providers can utilize the Unified Payments Gateway to provide digital, integrated and even embedded payment solutions to users.

USERS Consumers, businesses and the government will have access to digital and integrated solutions with overlay services.

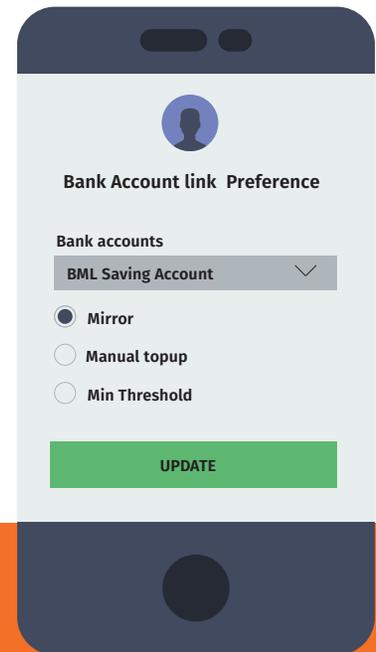
PAYMENTS INFRASTRUCTURE



2.DIGITAL SOLUTIONS

The second part of the project will be the development of multiple digital solutions which will allow users to make and receive payments instantly irrespective of where they hold their bank accounts in the Maldives. A digital solution simply provides the facility of making payments without other add-on services or functionality. The solution will utilize the accounts structure within the system, meaning that all entities in the Maldives will have a fast and reliable option for making payments. Users accounts will be linked to their respective bank accounts, and funds can be transferred between the central system account and bank accounts in a number of ways.

All inclusive Mobile and web-based instant digital payments solution to all Maldivians



FUND TRANSFER OPTIONS



Mirroring with bank accounts

The bank account balance will be fully reflected in the account within the payments system.



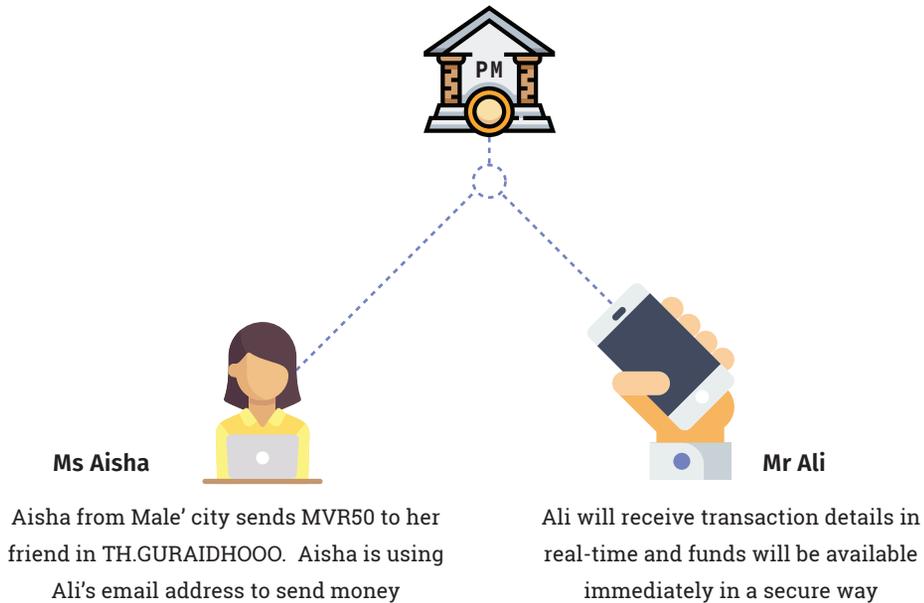
Manually topping up

Users top up an amount of their choosing by debiting from their bank account and crediting to their account within the payments system.



Setting a minimum threshold

The system automatically tops up the account within the payments system whenever the balance falls below the threshold set by the user.



Transfer money to bank accounts

Users will be able to transfer money from their central account within the payments system to their respective bank accounts.



International cards

Users top up their central account within the payments system by using an international card scheme.



Account to account

Users will be able to send and receive money from the central account of any other entity in the Maldives.

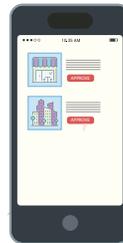
WHOLESALE PAYMENTS

Wholesale payments are generally large value payments made by corporate entities. A solution intended to be an electronic alternative for cheques will be available where the payment initiator and approver can be different individuals from the payee's side.

Dream Construction Pvt. Ltd. paying MVR200,000 to Cement Factory



Multifactor authentication



Dream Construction Manager approves payment



Cement factory receives transaction details in real-time and funds will be available immediately

PAYMENT GATEWAY

Local internet payments gateway will be introduced, which will provide users the option to use the local scheme to make online payments.

Local payments scheme



SELF-SERVICE TERMINALS

These terminals will be available in all inhabited islands at convenient locations, mainly to facilitate Know-Your-Customer procedures via fingerprint verification. Apart from this, all payment services that can be availed from the digital solution will be available through the self-service terminals.

Ahmed uses the self-service-terminal in Dh.Hulhudheli to validate his identity and activate all functions of the payments app



SOLUTION FOR TOURISTS

Tourists will receive an identifier, such as a smart card upon arrival in the Maldives. The card can be topped up using international card schemes, which can then be used to make domestic payments. The solution will enable all digital and integrated solutions and eliminate multiple card transaction charges and foreign exchange conversion charges.

John rents water sport equipments using the local smart card

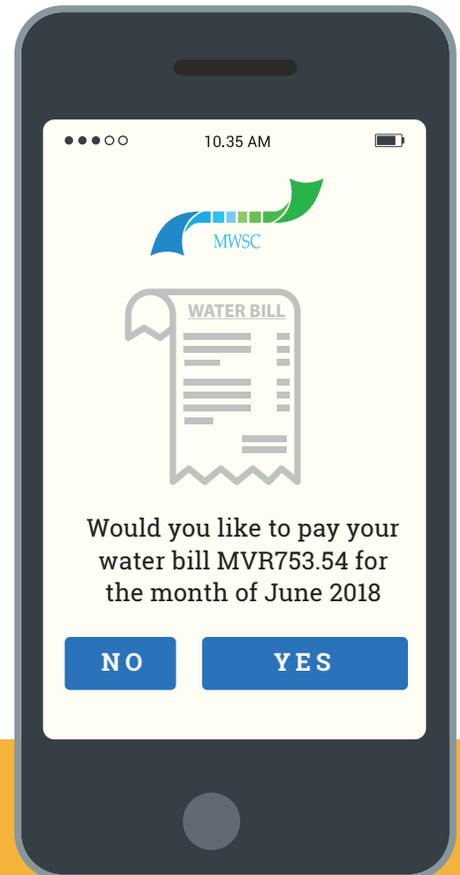


3. INTEGRATED SOLUTIONS

The third phase of the project will be the development of a number of integrated solutions to cater for selected segments of the payments domain. Integrated solutions seamlessly combine the payment process and value-added services that consumers demand, to provide convenient and packaged solutions. Strategic areas with a lack of market driven incentives and areas with potential for maximum impact on users will be prioritized when deciding on the underlying use-cases of the solutions. Possible integrated solutions could be geared towards catering for payments due at regular frequencies and the payments for transportation services, coupled with value-added services.

SOLUTION FOR REGULAR PAYMENTS

All types of regular payments, such as utility bills, rent and recurring government fees, can be paid through this solution.





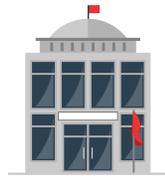
STAKEHOLDERS

IMPACT ON KEY STAKEHOLDERS



CONSUMERS

- Quick and convenient payments using easy-to-remember identifiers.
- No longer need to share bank account and other sensitive details.
- Execute all payments from a single account instead of holding multiple payments wallets.



GOVERNMENT

- Faster realizations of tax receipts.
- Richer payments data to complement tax compliance assurance efforts.
- Efficient and convenient means to distribute welfare pay-outs electronically.



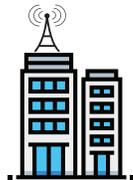
BANKS

- Eliminating the duplication of infrastructure by building and expanding the ATM and POS networks on top of the centralized system,
- Rich transaction data will facilitate data-driven innovation, and allow improvements to banking solutions based on the open banking concept.
- Commercial banks will have a major role in the operation of the payments system.



BUSINESSES

- No longer restricted to business hours.
- More convenient tracking and payment reconciliation.
- More room for cashflow management due to quick realization of sales proceeds.



PAYMENT SERVICE PROVIDERS

- Opportunity to introduce innovative payment solutions via the risk-based access to the payments system's Application Programming Interfaces (APIs).
- Provide convenient digital and integrated payment solutions to all Maldivians including unbanked.



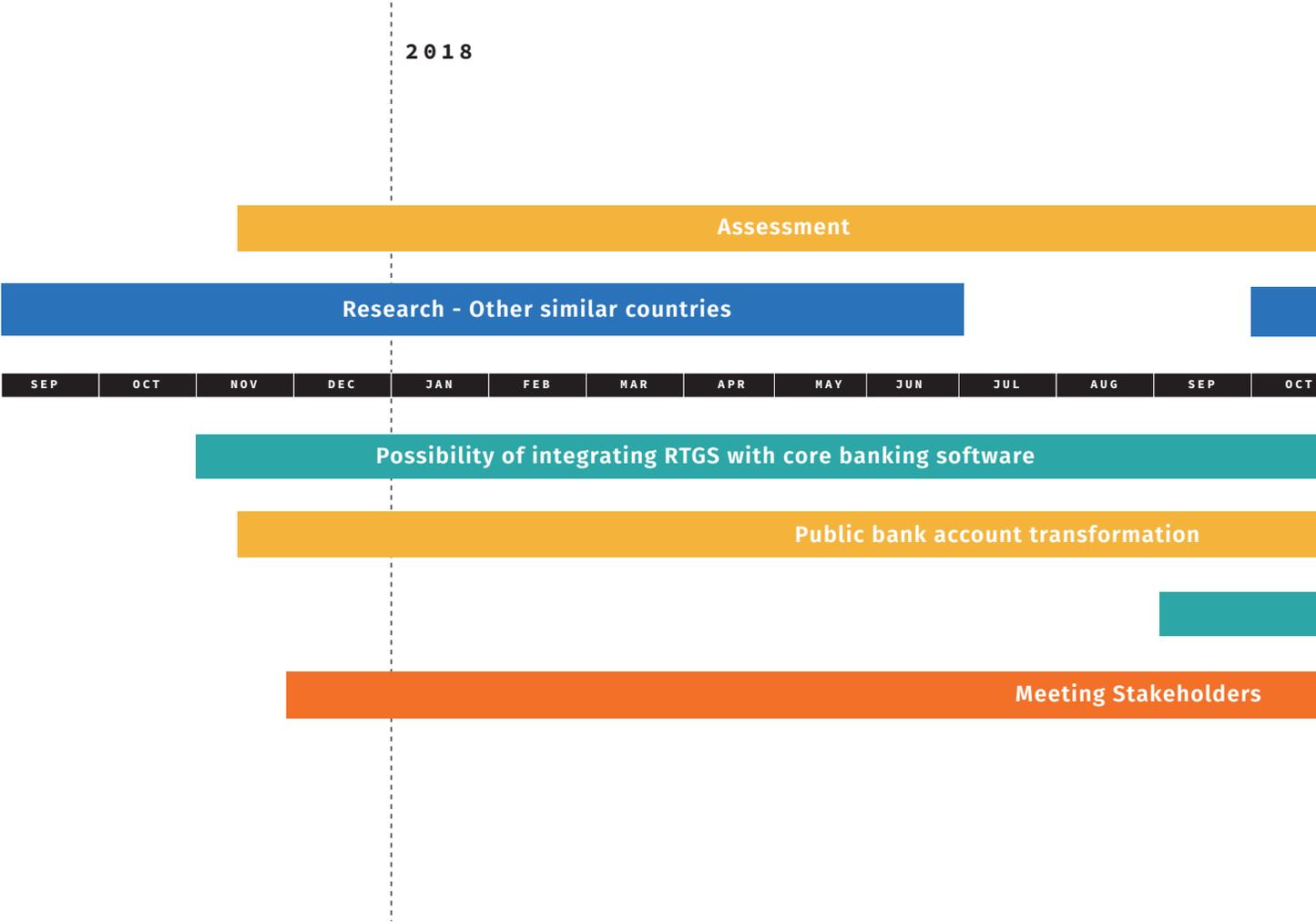
NON-BANK FINANCIAL INSTITUTIONS

- Financial services and payments can be linked, with the possibility of providing all-inclusive, integrated solutions that can reduce fees and charges for both the institution and customer.
- Financial services can be integrated into payment solution platforms offered by third parties, allowing financial institutions to focus more on improving their core services.

TIMELINE

THE WAY FORWARD

2018



2019

RFI and Selection

Concept Finalize

Implementation

NOV

DEC

JAN

FEB

MAR

APR

MAY

JUN

JUL

AUG

SEP

OCT

NOV

DEC

Regulatory Framework

ENGAGE

JOIN US

PAYMENTS IMPROVEMENT COMMUNITY

The Payments Improvement Community was established to provide opportunities for all stakeholders to take part in its full portfolio of payments improvement initiatives. Whether you are an end user, government institution or a financial services innovator you will be able to work in groups with similar areas of interest to provide constructive feedback.

To participate, fill out the contact form in our website and be amongst the first to hear about opportunities to engage in this important effort.

For more information please contact us

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