

*The Enterprise Mobile Financial Services Platform*

## Creating the first digital economy in the Maldives





## Introduction

In 2010 the World Bank and the Maldives Monetary Authority (MMA) commissioned payment systems provider Montran along with Fundamo to develop and implement a national, fully interoperable, mobile payment system in the Maldives.

The disparate 1,200 islands, which make up the Maldives, needed an alternative to cash to drive financial inclusion. The social, economic and technological environment in the Maldives provided the perfect situation for the implementation of an entirely digital economy. with mobile financial services at its heart.

It lowers the cost of inter-bank transaction and settlements, reducing systemic risk and allows for better targeting of liquidity instruments by participating banks.

The result is a service that provides mobile access to financial services and enables new insurance and credit products. Crucially, it allows the unbanked populace to make payments across the disparate atolls, the groups of small coral Maldivian islands, in the region.

The project is the first public sector-led implementation of this scale anywhere in the world and its aim is to create the world's first digital economy.

## About the MMA

The MMA acts as the central bank in the Maldives. The primary function of the MMA is to issue currency and regulate the availability of Maldivian Rufiyaa, implement monetary policy in the republic, and advise the government on issues relating to the economy and financial systems.

In 1981 the MMA Act was issued. This gave the MMA the mandate to regulate and control the guidelines for all local and foreign financial institutions working in the Maldives.

## About Montran

Since 1979, Montran has been the world leader in designing and implementing cost-effective, comprehensive Payment, Clearing and Settlement systems that are Java based and platform independent.

The company is a SWIFT Solution Provider and the Montran Payment systems are certified SWIFT Ready applications.

Montran was commissioned by the MMA and the World for this project

## The Maldives' financial disparity

The Maldives suffers from a lack of basic financial services, which has propagated poverty and vulnerability. Across the 1,200 islands which make up the Maldives 26 atolls, only 30% of the population had access to a bank account. However, there was a large disparity between the atolls and the capital Malé, where 65% of the population had a bank account.

A total of 16% of the population lived below the median poverty line (US\$1.18/day) in 2005.

The disparate geographical nature of the republic meant that people working away from their atoll were unable to transfer money home in a safe, cheap and time efficient way. There was also no access to insurance products, a fact that was exacerbated by the high risk of natural disasters in the region.

## How to leapfrog 'traditional' payments

The Maldives project aims to "leapfrog" traditional payments development patterns by building an interoperable payments infrastructure reaching all segments of the population through the use of banking agents and mobile technologies.

The project had two main objectives:

- To provide financial services including new insurance products to the unbanked and underbanked Maldivian people.
- To create the Maldives Interoperable Payments System (MIPS) capable of handling multi-currency operations, interoperating with all local mobile network operators and local banks.
  - This will enable a number of services such as mobile-to-mobile money transfers regardless of whether the two MPS accounts are held at the same or different banks, and regardless of the GSM network used by each phone.
  - It will encourage third parties such as merchants and utility companies to use the payments infrastructure in place of cash, which was widely used even for relatively high value transactions.

Ultimately, the new system would provide an integrated payment system regardless of the channel – card, ATM, internet and mobile – with the ability to add new organisations and payment types in the future.

This is in contrast to the majority of payment systems which comprises of a patchwork of loosely "knitted" technologies.

## A platform for a nation – achieving interoperability

The MMA and the World Bank with Montran chose Fundamo's banking grade Enterprise Platform to enable interoperability because it is proven in the delivery of mobile financial services across a wide range of markets. Furthermore, the platform is highly configurable and scalable, providing a variety of potential service options.

Using the Fundamo Platform, the MIPS is able to connect to any of the five banks over either of the two mobile networks in the region. Open systems and interoperability are key features of the architecture, enabling the delivery of not only competitive services to the consumer, but full inter-bank payment capability. This allows the platform to evolve as consumer demand and service requirement increases – critical in the Maldives.

As part of the project an extensive network of local agents was created. These agents enable subscribers to deposit and withdraw cash from mobile accounts. They are also trained to enrol new customers and provide them with a mobile account through the mobile handset. Agents are non-exclusive to a single bank and be free to work with multiple service providers.

The key first step was to set up a central payment systems infrastructure – real-time gross settlement and automated clearing house system, an ATM/ EFTPOS (automated teller machine/electronic funds transfer at point of sale) switch, and a payments regulatory framework.

The interoperable mobile payments system, provided by Fundamo, completes the national payments infrastructure, linking banks and GSM operators.

Each mobile account is a bank account, and can be accessed through the mobile payments system, the Switch (for accounts on which cards have been issued), and the ACH – enabling salary payments, for example, to be made direct to the users mobile account using direct credit. Mobile accounts are held within the system, at a "virtual branch" of the participating bank at which the float is held (nominated by the subscriber on registration).

Non-mobile accounts on which a debit or ATM card has been issued can be linked to the mobile account, enabling real-time transfers between the MIPS account and the linked account in either direction.

The scalable offering allows for any new MNOs or banks to be connected to the MIPS. As an example, since the programme's inception, HSBC has opted to join the scheme.

## The Success of the Project to Date

Moving to a mobile, cashless system will significantly improve the lives of the rural communities, who currently lack access to any financial services. Having previously relied entirely on cash, due to the disparity of the Maldivian atolls, many of the rural people who have had to travel for days to reach the banking institutions in Malé will now have a secure, convenient and reliable way to manage their money.