

# Mojaloop Product Overview



## What is Mojaloop?

Mojaloop is a solution that enables the smooth interconnection of financial service providers (FSPs), such as banks, micro-finance institutions (MFIs) and mobile wallets, enabling their customers to move money in a ubiquitous, low friction manner that meets the demands of the emerging digital economy. Interconnecting banks and unbanked people and businesses can provide a powerful impetus in financial inclusion, and it offers the potential of strong support to a country's economic growth.

Mojaloop is open source software, supported by a worldwide community of developers who have collectively been deeply involved with some of the most important innovations in payments of the last few decades. They continue to innovate with Mojaloop, developing functionality to meet the emerging and evolving needs of the digital economy. Since it is open source, Mojaloop offers opportunity to all.



## What Does Mojaloop Do?

At its core, Mojaloop supports the real-time movement of money between FSPs, offering "instant" transactions between a payer at one FSP and a payee at another. At its simplest, a Mojaloop transaction is a "push" payment, for example a customer in a shop pushing money to the merchant, irrespective of where each chooses to "bank" or which account they wish to use for the transaction.

The same underlying capability also supports peer to peer transactions, such as someone sending ("pushing") some money to a friend or relative.

As an alternative to the standard "push" transaction, Mojaloop also offers a "pull" payment option, known as "Request to Pay," or RTP. By using RTP, a merchant can send a request to a customer to authorize a payment; once the customer agrees, the merchant's bank is able to request an "instant" payment from the customer's FSP.

In a retail environment, both "push" and "pull" payments can be integrated into an FSP's wallet/app with an initiation layer added on top; this could be something as inclusive as a USSD interface, or as intuitive as a QR code reader. Both options are being developed by the Mojaloop community as so-called "white label" solutions available for integration with an FSP's wallet.



Supporting the fintech ecosystem that is emerging worldwide, Mojaloop offers third party payment initiation (3PPI)<sup>[1]</sup> capabilities, allowing fintechs to build payments capabilities into their services and the apps their customers download. But Mojaloop does this in a manner that creates a level playing field for all fintechs, whatever their resources – rather than requiring a fintech to laboriously carry out 3PPI integration one by one with all of the FSPs in a country, the Mojaloop solution asks each Fintech to integrate just once, with the Mojaloop 3PPI service. Through the integration of that service with the Mojaloop Hub itself, the fintech is then automatically connected to every FSP that is already connected with Mojaloop.

Finally, as well as these individual transactions, Mojaloop also directly supports bulk payments, so that a list of payments to be made can be submitted in a single Mojaloop transaction. This was originally intended for salary payments, or for government payments such as pensions and aid, but it is also being used by, for example, MFIs who wish to disburse a day's or week's loans in a single Mojaloop transaction.

## How Do FSPs Connect to Mojaloop?

The Mojaloop Hub uses the open source Financial Services Provider InterOperability Protocol (FSPIOP) to connect to FSPs and their core banking systems (CBS). This is a very flexible, capable protocol that supports all of the functionality already described, and does this in an asynchronous manner. A variety of mechanisms are available to FSPs who wish to connect to a Mojaloop Hub:

1. Direct implementation of FSPIOP – a complex option, only suitable for the largest FSPs;
2. Use of a Mojaloop Connection Manager (MCM), an open source implementation of FSPIOP, with particular versions available for the most common CBSs;
3. Use of the open source Payment Manager, which incorporates an implementation of FSPIOP, offers customizable Core Connector options for each FSP's CBS, and has significant capabilities for the management, reporting and troubleshooting of the link between the FSP and Mojaloop. Payment Manager offers even small FSPs extensive self-onboarding capabilities, significantly reducing the complexity and effort required to integrate with Mojaloop.

In the light of the capabilities of Payment Manager, and the functionality it offers to FSPs, it is increasingly becoming the recommended approach for connecting to Mojaloop.

[1] Also known as payment initiation service provider (PISP)



To learn more about the Mojaloop Foundation, visit <http://mojaloop.io>