

## CASE STUDY

# Using Blockchain to Improve Aid Transparency and Efficiency



Advances in technology can help aid agencies reach people in need securely, quickly, and more cost effectively. Photo credit: ADB.

*A fintech company uses blockchain technology and digital IDs to help ensure that aid reaches the right person at the right time.*

## Overview

Every year, developed countries donate more than a billion dollars as foreign aid. According to the United Nations, however, around 30% of the money is lost to corruption and fraud. This is a problem that continues to confront governments, NGOs, and development agencies.

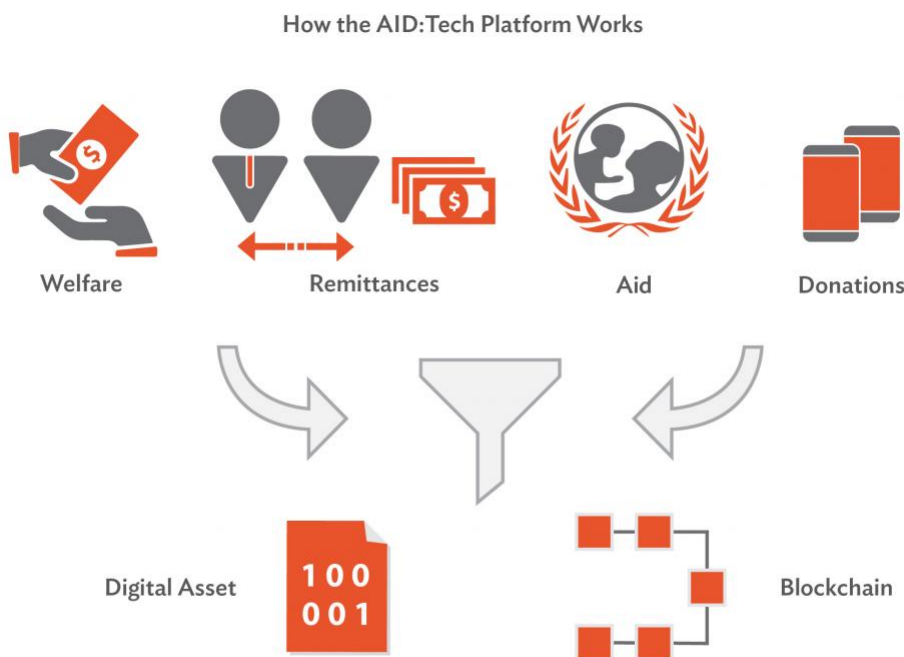
At a knowledge sharing event at Asian Development Bank, AID:Tech CEO Joseph Thompson shares how the Ireland-based fintech company was able to successfully and transparently deliver humanitarian aid to Syrian refugees in Lebanon using blockchain. AID:Tech uses digital technology to bring social and financial inclusion to the world's underserved population.

# Challenges

The efficient and transparent delivery of aid requires that beneficiaries have a digital identity on the blockchain. Connecting the intended beneficiaries with an identity provides a traceable flow of information to ensure that the aid reaches the right person at the right time.

However, there are 2.4 billion people in the world without a legal identity. The absence of a legal identity excludes these individuals from accessing services and participating socially and economically. The provision of legal identities is crucial to global development and is among the targets of the Sustainable Development Goals, specifically goal 16.9.

# Solution



Entitlements, such as cash assistance and food aid, are represented on the AID:Tech platform as digital assets. Blockchain technology is used to send and receive these entitlements.

Source: AID:Tech

Blockchain technology works through a shared ledger that is distributed to all participants in the network who use their computers to validate transactions. It removes the need for a single entity to control the data.

Using blockchain technology, AID:Tech developed a platform that can create a digital identity for beneficiaries to enable them to obtain goods and services directly. Think of merging your credit card and passport—the beneficiary is now in control of their own data.

The AID:Tech platform has the following functions:

## Beneficiary registration

A trusted custodian, such as a government institution or NGO, onboards beneficiaries into the platform. The organization shall be responsible for performing “know your customer” checks and verification procedures. Each beneficiary is assigned a blockchain wallet address, which is referenced to the organization’s identification system. All beneficiary data belongs to the end user and/or the government institution or NGO. AID:Tech does not have access to this data.

## Digital assets

Digital assets are created to represent products and services (e.g. money, sack of rice, water, medicine, health care) for beneficiaries. There is instant reconciliation of transactions, which prevents fraud.

## Asset distribution

The assets are associated with a blockchain wallet. Beneficiaries claim their entitlements using a simple plastic card or mobile phone application. Transactions are then recorded permanently on the blockchain.

## Reporting and analytics

Government, development agencies, and institutional and individual donors can monitor transactions in real time and see transactions online. In this way, they get to know who receives the money and what it was used for.

In delivering aid to Syrian refugees in Lebanon, AID:Tech partnered with the Irish Red Cross, which has a database of refugees eligible to receive assistance. The Irish Red Cross issued each of the refugees a plastic card with an associated blockchain wallet address/ID. These were loaded with \$20 each to be redeemed at a refugee camp store. The beneficiary goes to the store to purchase goods. The shopkeeper scans the QR code of the plastic card, which contacts the blockchain wallet address. The shopkeeper checks the amount of money available, and confirms the transaction. Donors receive an SMS message informing them of how their donation was used.

AID:Tech worked with a payments solution provider for cash settlement with shopkeepers.

## Applications

Building a digital ID on the blockchain can facilitate access to an array of services, including social welfare payments, remittances, and health care.

## Social welfare

In Ireland, a charity worked with the Social Welfare office to distribute paper vouchers with the digital equivalent of between 5 and 50 euros to women from the travelling community. They then redeem these vouchers at a network of stores to buy food, clothing, and other items. The transaction data (i.e., items bought, time bought) can be used by the stores to program their inventory.

## International remittances

In Serbia, the platform will be used to provide affordable and traceable remittance services. It is expected to bring down remittance fees to 3% from 7.8%. SDG 10.C states that remittances should be brought down by 2030 to less than 3%. Using the platform, those sending money home can specify how exactly the money will be spent, e.g., payment for electricity bill.

## Health care

Health care entitlements (e.g., medicine, medical appointment, laboratory tests) are treated as digital assets. Using smart contracts on the blockchain, entitlements can be distributed based on a set of conditions. For example, if a patient is at Week 4 of pregnancy, a prenatal visit digital asset will be sent to the digital ID holder so she can obtain a visit from the clinic. A similar application may be used for conditional cash transfer programs. This is currently being rolled out on the AID:Tech platform in Tanzania.

## Results

The platform was used to deliver aid to Syrian refugees in Lebanon in 2015. Using their vouchers/cards, Syrian refugees were able to purchase goods from accredited local supermarkets. It was the first time ever that international aid was delivered using blockchain technology.



Source: AID:Tech

## Lessons

The creation of a digital identity by using blockchain technology facilitates the transparent and efficient delivery of aid. It enables close monitoring of transactions and builds a social and economic footprint for the beneficiaries. In addition, the transactions can be used for big data analytics to support forecasting and policy development.

In rolling out the platform, it is best to partner with an institution that has access to beneficiary

information and has the capacity to verify the users. The platform is not intended to create a new ID system but to bring together different systems.

## Resources

AID:Tech website

Sustainable Development Knowledge Platform

## Related Links

Explainer: *How Blockchain Can Revolutionize Access to Finance*

Insight: *How to Turn Blockchain Fintech Hype into Reality*

Insight: *Lessons from Asia's Blockchain Pilot Projects*

Explainer: *Promoting Financial Inclusion through Distributed Ledger Technology*



Joseph Thompson

AID:Tech CEO & Co-founder

Joseph Thompson combines a background in management consultancy with strategic IT management. Before founding AID:Tech, he held a number of senior positions at Bearing Point, Ericsson, The Litmus Group, and Allied Irish Bank. He was recognized by the United Nations as a global SDG Pioneer for his work in promoting blockchain technology and its potential in global development.

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