



# Digital identity for inclusion

BY RAMAN NARAYANSWAMY AND OLGA LABELLE



BOOTH N°E06

## Why digital inclusion matters

**As the rest of the world is quickly digitizing, the lack of digital access for these communities will only exacerbate their exclusion and increase inequality.**

There are 3.4 billion<sup>1</sup> people around the world – almost half the global population – struggling to meet their basic needs, such as access to food and life-saving healthcare. They live in incredibly difficult circumstances and highly challenging environments, excluded from mainstream institutions and services that could improve their lives. As the rest of the world is quickly digitizing, the lack of digital access for these communities will only exacerbate their exclusion and increase inequality.

Their environments rely on paper-based, analog, and oral processes, which are highly expensive and labor-intensive. Digital tools and channels can drastically improve reach and increase access by reducing the cost to serve those

communities, and improving the effectiveness of service delivery.

Moreover, analog processes are opaque and generally do not allow for developing meaningful data-driven insights. How can institutions improve access to healthcare services without understanding how many children need vaccinations? How can banks provide credit to micro-entrepreneurs, who keep paper-based ledgers and have no visibility into how much business they do each day? By comparison, digital solutions create general data insights that can drive efficacy, efficiency, and transparency, enabling a better allocation of resources and better service delivery.

At Mastercard, we believe that digital inclusion is necessary to put more people on a path to prosperity. By bringing the latest in digital technologies and tools to underserved communities, by digitalizing the way institutions serve those communities – we can fundamentally transform service delivery and increase access to services for those who are excluded today. Identity is a critical component of this suite of tools.

## The role and challenge of identity for inclusion

Identity allows governments to include individuals, and it establishes the individual's rights to national benefits. It's the foundation for participating in the economy and for improving one's livelihood. To be included, individuals need to be known. Digital identity helps define an individual in a digital world. A well designed digital identity ecosystem creates a method for institutions to serve the individual with ease and at low cost.

However, today's digital identity solutions are expensive and cumbersome, and cannot serve communities at scale. Every organization, retailer, or service provider offering digital capabilities to their customers must create their own digital identity system. They must safely and securely register each individual user, give them an account, and store that customer's credentials and personal information. The cost of infrastructure is high, the mechanisms for identity verification and authentication are expensive, and the related compliance and audit obligations are often so cost-prohibitive that service providers to the underserved often shy away from them altogether.

Even where there is a digital identity system in place, every service provider offers it in a silo – this creates an onerous burden for the underserved individual. She must register multiple times for each service provider, she must carry multiple credentialing devices, and she must constantly prove that she is who she says she is. For user populations where digital

literacy is limited, this added friction in a best-case scenario takes away time that could otherwise be used to generate income, and in a worst case makes them unable to use a digital identity, which excludes them from access to critical services altogether.

As a result, the cost, complexity and user challenges associated with managing a digital identity often prevent access to digital services and tools for underserved communities.

## A shared digital identity for underserved communities

**We at Mastercard believe it's time to fundamentally reconsider how identity is constructed, protected, and managed in a digital world, to address the new realities of the digital economy and the people seeking prosperity within it.**

**What if there was a way to create an inclusive, secure, privacy enhancing, re-usable and cost-effective digital identity infrastructure for all – even the most financially excluded communities in the world?**

**We envision a world where everyone can go about their lives, interacting with one another and organizations seamlessly, without friction, exchanging information privately and securely. A world where trust can be established, and people can efficiently 'be known', so that they can gain access to the services and experiences they desire and need.**

## Inclusive digital identity

**Without a foundational identity, they find it difficult to form relationships with larger institutions – such as government agencies or banks – nor can they get access to digital services.**

A great number of individuals still don't have a formal identity, such as a birth certificate or passport.<sup>2</sup> They are too difficult to reach, often because they are remote, migratory or displaced. As a result, they do not interact with mainstream agencies and government institutions because they are not seen or known by the government. They are nearly impossible to serve. They get by on the basis of local relationships, where they're known to other members of the community as the individual who buys groceries, or the kiosk owner, or the farmer. But without a foundational identity, they find it difficult to form relationships with larger institutions – such as government agencies or banks – nor can they get access to digital services. And they are often taken advantage of by agents in the middle that intercept government flows and private money transfers aimed at making their lives easier.

What if we could provide the digital identity infrastructure to better connect those remote, underserved individuals to mainstream services? We're building a functional digital identity infrastructure that is shared and interoperable to drastically lower costs, thereby extending reach and ensuring that everyone has access to critical services, regardless of how remote or disconnected they may be.





## Secure and privacy enhancing digital identity

Mastercard uses world-class security safeguard technologies including tokenization to secure the user's identity. We design our solution in a way that provides the user complete control over their own identity. Finally, we give the user agency, that is, they must be present and seeking to participate in a transaction in order for their identity to be used, verified or registered.

## Re-usable digital identity

With a shared digital identity, an individual can move their identity from provider to provider. They can register with one provider, and if they desire, can present their same credentials to be registered with another provider. This significantly reduces the friction to serve the user. They need only register once, and can then have a seamless experience across different participating providers. Finally, if and when they desire and choose, they can share information between providers to improve the services delivered. This portability is critical to reducing the costs to serve the individual, while laying the groundwork for more effective delivery of care.

## Cost-effective digital identity through interoperability

**Service providers that use this shared digital ID reap the benefits of leveraging a shared infrastructure.**

Service providers that use this shared digital ID reap the benefits of leveraging a shared infrastructure. Rather than incurring a capital expenditure to buy or develop their own solution, they can consume digital identity management as a service. They receive services such as unique identity generation, de-duplication, verification and authorization, shared credentialing devices, audits and compliance services, and operational services. For those who work across multiple markets, that shared infrastructure will be deployed globally while being customized to local environments – again, drastically reducing the costs of setting

up the system in every market and enabling significant scale. Mastercard ensures this by using secure, interoperable standards to ensure that different technology providers can use the same infrastructure, while also meeting strict security and privacy requirements.

## Key principles of our approach

We have a set of guiding principles to the way we approach our digital identity solution, which are aligned to the World Bank's Identity for Development principles that we have endorsed.<sup>3</sup> These include:



### Inclusion

We are designing our solutions to support universal coverage, free from discrimination, and with the aim of removing barriers to access.



### Design

We ensure that our solutions are robust and secure, that they are interoperable, that they leverage and reinforce industry standards, and implement privacy by design from beginning to end.



### Governance

We are reinforcing data privacy, security, and user rights through the rules and standards that we are putting in place, and we are creating fair and transparent processes for managing disputes.

## Why Mastercard

Through its 50+ years of history, Mastercard has been the provider of global, interoperable, financial identity reaching today more than 2 billion people and millions of merchants. We enable an interoperable ecosystem that brings in many players and technology providers to jointly bring in their assets to enable global commerce.

We now seek to build on that expertise to create an interoperable ecosystem for underserved communities. This will bring in key players – including governments, United Nations agencies and non-governmental organizations, and technology providers – to jointly serve underserved communities. As a company, we understand how to engage that ecosystem of players and develop models that bring together many parties. We have the knowledge of technology to drive interoperable exchange. We have expertise in creating commercial models where the full ecosystem gains value. And finally, we have the ability to build legal and operational constructs that systematize those models.

We're creating an ecosystem for digital life transactions, based on a robust, secure digital identity infrastructure, for underserved communities and individuals that currently struggle to meet their basic needs.

We envision a new digital identity system that works for people – all people. One that is safe, secure, more inclusive, and more convenient.

More importantly, we are bringing together the partnerships, resources, technology and know-how to make this vision a reality.

<sup>1</sup> World Bank press release "Nearly Half the World Lives on Less than \$5.50 a Day", October 17, 2018

<sup>2</sup> This number is difficult to estimate precisely, but all estimates say it is over a billion. (Identification for Development (ID4D) Global Dataset, World Bank Group)

<sup>3</sup> World Bank's ID4D principles page: <http://id4d.worldbank.org/principles>

