

The Kingdom of Morocco introduces a national digital ID program

The nation puts into effect its digitalization plan based on new eID cards to reinforce security and convenience for citizens



Needs & challenges

Cited among the 'African champions of Tech' in 2019, the Kingdom of Morocco is widely recognized for its digitalization. When it comes to digital transformation, this nation is always ready to take the next step. So when King Mohammed VI linked, in his March 2013 speech, the development of the country to the ongoing digital revolution, it was a natural move to modernize the ID card and open it to the digital world.

His Majesty's royal directive emphasized the need to increase efficiency within public services and improve overall citizen satisfaction. Digital technology being a key factor to obtaining both goals, the General Directorate of National Security (DGSN) issued a new electronic identity (eID) card that will serve as the foundation for the country's national digital ID platform. Through the provision of state-of-theart solutions, the DGSN aims to support key digitalization development goals to provide remote access to public and private services.

A strategic plan to digitalize government services

In line with the nation's digitalization process, Horizon 2025 is a plan that aims to establish an end-to-end digitalization solution for citizens and administrative services.

Previously, Moroccan citizens almost always had to go to state agencies and interact with public administration staff to access government services and social benefits. Drawing on Horizon 2025's objectives, the Moroccan Digital Development Agency (ADD) and DGSN envisioned **lightening administrative procedures by digitizing them**, making the process quicker and saving time for all.

The ADD has been very active in promoting digital services within Morocco. In the frame of a newfound partnership with the ADD, the DGSN

agreed to provide the ADD with a national digital ID platform on which public and private service providers (eGovernment services, banks, insurance companies and digital signature services etc.) could rely for secure remote citizen authentication. This digital ID platform is structured upon the new national eID card. Launched in 2020, this eID card is the anchor of trust for remote citizen authentication.

Promoting transparency throughout the entire process and ensuring safe and secure access to administrative services is also crucial in order to limit the risk of fraud or corruption.

Providing a secure and transparent solution for citizens and governments.



Providing a stateof-the-art identity document

From the beginning, the DGSN made it clear it wanted a top-notch document in terms of security and design. It needed a solution that could be used for authentication purposes for digital services delivered by a provider that could guarantee quick service. Together with IDEMIA, the DGSN began supplying citizens with biometric elD cards with advanced physical and electronic features in August 2020.

Facilitating services for citizens is at the heart of this project. Moroccan citizens can pre-enroll and reserve appointments for eID cards application through a new online portal, enabling a faster and quicker administrative process. Within this partnership, IDEMIA supplies ID documents, along with personalization solutions and engineering support. The DGSN benefits from full training and maintenance services.

A tamper-proof and multiapplicative eID card

Thanks to state-of-the-art security features, IDEMIA provided a solution that meets the DGSN's request for a document as secure as can be.

Morocco's new eID card embeds **ID-One Cosmo** range, IDEMIA's smart card solution for eIDs. This Java Card range integrates **high-level**

cryptography and the latest security mechanisms required for national multi-application programs. The eID card's contactless chip embeds ICAO and eID applications. These applications incorporate certificates for authentication and fingerprint match-on-card capabilities, and these are combined to perform multifactor online authentication to access eServices (eKYC).



A personalization solution for Moroccan identity cards

The DGSN also benefits from hardware and software personalization systems (at two personalization sites) which enable the **secure management of the card lifecycle** at all stages. IDEMIA tailored its personalization and issuance solution to process biographic and biometric data (face and fingerprint templates).

By April 2022, over 10 million new eID cards had been issued. Based on this large population coverage, the DGSN and ADD decided that it was the perfect time to launch the digital platform.

The Kingdom of Morocco's national digital ID system

eID cards, the anchor of trust for the national digital ID program

Crucial to strengthening and securing online services, the DGSN strategically positioned the new eID card as the main authentication factor for remote citizen access. The securely stored biographic and biometric (face and fingerprint) data in the eID card is read using NFC technology via a standard reader or smartphone. The DGSN provides the eID card holder with a PIN code for secure remote identification. This code allows the citizens to grant access to their personal data stored within the chip and also protects the holder's data if the card gets lost.

From pilot to roll-out

In 2019, the DGSN started a pilot to develop a national digital identity system providing authentication services. The system is based on an identity and access management platform. The long-term objective is to offer **identity verification services** with the highest level of trust to the entire Moroccan ecosystem (government agencies and private service providers).

pilot program allowed the enrollment of a limited number of service providers to connect to the platform. It took place over a threeyear-period, divided into three stages. At each stage, IDEMIA delivered a part of the platform and gave the DGSN a new set of functionalities to be tested. Throughout this period, the DGSN constantly worked with IDEMIA and several service providers. Together, they optimized the process and tested the functionalities in the following areas, assessing whether they were easy-to-use and measuring ergonomics:

- > Identity management
- > Consent management
- > Control of authentication methods
- › Data control
- Alert system
- > Simplified procedure



By demonstrating the platform's online authentication capabilities early on in the development phase, the DGSN could assess service providers' needs and adapt accordingly. On April 25, 2022, the platform was officially launched, opening the door for all service providers to use it for their future offerings.

Citizen onboarding with the mobile app and citizen authentication platform

In order to benefit from the national digital ID system, citizens have to first onboard either via a kiosk or remotely (via a smartphone or the web). For this critical first step in the digital journey, IDEMIA has provided continuous support to the DGSN in terms of engineering and training services, along with advice in regards to digital transformation and change management.

The **dedicated smartphone app** (Mon identité numérique) designed by IDEMIA is available in French and Arabic. Mon identité numérique offers unified access to digital identity services and aims to encourage adoption of the platform. This app allows citizens to activate the use of their digital identity. After this, it allows the citizen to monitor all authentications and operations

taken with their account or card. The app also allows the citizen to access additional functionalities such as using new authentication factors or receiving alerts every time authentication takes place.

Citizens can also manage their identity and the specific functions below through a **dedicated portal** (www.identitenumerique.ma):

- 1. Activate or deactivate their digital identity account
- 2. Manage authentication level factors (passwords, OTP, mobile devices)
- 3. Track the use of their digital identity online (history of authentication transactions)
- 4. View and modify consent

IDEMIA also provided the DGSN with smartphone and web onboarding kits for service providers. After connecting to the platform, service providers can integrate a common interface instructing citizens on how to authenticate themselves on the platform using their eID.

Offering identity verification services with the highest level of trust.

Remote authentication with the national digital ID platform

The national digital ID platform provided by IDEMIA leverages on the Moroccan national eID card to verify identities via several authentication factors (PIN code, face and fingerprint).

When a citizen wants to access a service via the national digital ID platform, the authentication service platform receives authentication requests from service providers and manages authentication factors based on previously defined security policies. After the citizens have scanned the MRZ or typed the Card Access Number (CAN), authentication requests are sent to their smartphone and they are asked to place their eID card behind the smartphone for NFC reading. The mobile app will read the information contained in the chip and the PIN code will be required to complete the verification process.

Depending on the level of security needed to access the service, biometrics (a face and/or fingerprint) may also be requested in addition to the document verification. The use of biometrics, including liveness detection (for face verification only), ensures convenience and security, bringing additional trust to the service providers using the Moroccan National Digital ID platform.

The ID platform has been designed so that all citizen personal data remain protected at every step of the process. The data is not stored by service providers and citizens can use this platform with the confidence that they remain in control of their data. Advanced encryption is extensively used to further strengthen the protection of the biometric data.





Safe and quick access to public and private services

The adoption of the new eID card has exceeded the DGSN's expectations, with more than 10 million eID cards having been delivered since August 2020, equivalent to about a third of Kingdom of Morocco's population.

Thanks to the new eID cards and digital platform, the citizens of Morocco have a more user-friendly and secure access to government and private eServices. Quickly deployed, the solution will help lighten administrative procedures.

In order to ensure the overall inclusion of the population and equal access to online services, the national digital ID platform will continue to support some functionalities using old generation identity cards.



A win-win solution



Citizen satisfaction

- > Easier and more convenient access to public and private services
- > A unique and secure identity
- > Secure access to online services



Public and private sector benefits

- A high-end solution that supports the country's digitalization process
- Fraud prevention with state-of-the art biometric technologies

https://www.idemia.com/physical-and-digital-id-credentials





