

Traveling is a privilege, but also a source of development for local citizens and the country's economy. The power of passports is undeniable.

The world in your pocket

Passports represent freedom

Passports enable you to travel, explore different cultures and sometimes even live and work in a foreign country. Their power is undeniable, so much so that they are ranked and given a score based on the number of countries you can visit without a visa. The higher the score, the higher the ranking. Among the companies ranking passports are Passport Index and Henley Passport Index. Passport ranking is based on proprietary research from publicly available sources, as well as official information provided by government agencies. An impressive work considering there are 199 passports to review annually!

Traveling is a privilege, but also a source of development for local citizens and the country's economy. The goal of each government is to ensure it is as easy as possible for its citizens to travel abroad. By providing an **electronic passport**, and by maintaining a reliable identity infrastructure and **border control** process, governments are able to obtain **visa exemptions** with specific countries. A visa exemption is based on confidence and mutual respect between countries, as it allows citizens to visit a foreign country without requesting a formal visa. When a country benefits from a visa waiver, for example for the US, online registration procedures, such as ESTA, replace the visa request, and the response arrives in few days after a background check on the person wishing to travel.

Passport security is a root of trust between countries

The confidence between countries, and by consequence the power of a passport, is established on several factors that encompass political and economic aspects, as well as the capacity to apply counter-terrorism laws. However, a fundamental element remains the checks on delivered identities. It is all about the capacity of a country to maintain a high level of security against identity fraud: starting with birth registration or the creation of a new identity, **identity management** throughout the citizen's life, the use and checks of the identity (i.e. at the border) and the logging of lost and stolen documents. Not forgetting the secure management and issuance process of passports to prevent the issuance of legitimate documents under false identity (first passport application/passport renewal).

Creating a **secure passport ecosystem** based on reliable identity proofing, including biometric verification, and the end-to-end security of the ePassport issuance system, is a significant element in passport ranking. This is regardless of how the document is designed to **resist to fraud attempts** once it is in circulation, and potentially lost or stolen.

Secure passports are not just electronic documents that comprise a chip with the holder's personal data – the portrait and optionally the fingerprints. The physical booklet and the design of the data page are key to managing resistance to counterfeiting and forgery, keeping in mind that the chip can be voluntarily deactivated by usurpers.

Four main types of passport fraud

A secure passport design enables bona fide travelers to enjoy a stress-free trip, safe in the knowledge that their proof of identity is one of the most cutting-edge ID documents available. However, a question often asked is: "If my passport is personalized with my photo and personal details, who else could use it? Why do we need to secure passports?" While these are legitimate questions, passports are so valuable that fraudsters are willing to go to unimaginable lengths to obtain and alter an ID document that does not belong to them. Identity theft is all too real and affects millions of people around the globe. INTERPOL has registered more than 80 million stolen or lost travel documents in total.²

There are four main types of passport fraud:

- Counterfeiting: the creation of a completely new but fake document that may integrate parts of a genuine document
- —> **Forgery**: the alteration of personal data of a lost or stolen document, where a fraudster has modified the photo and/or date of birth, etc.
- ->> Impostor: when a genuine document is used by someone who looks very similar to the actual passport holder
- Fraudulently Obtained Genuine (FOG) document: an authentic passport obtained through deception by submitting either a false or a counterfeit identity proof.

Three layers of defense

Fraudsters are persistently looking for ways to **counterfeit** passports. The good news is that governments and passport providers have teamed up to make sure passports are as secure and tamper-proof as possible. **Securing a passport** starts with the use of a polycarbonate material for the data page (the page with your portrait and name). The properties of this plastic enable a combination of sophisticated security features on the surface or in the thickness of the page, with tactile or optical effects, in the visible of invisible spectrum. The **security features** are complex or impossible to reproduce, but are easy to inspect for border guards.

Then comes the training of border guards who have mere moments to verify the document. Hence the interest of a *less is more* approach here, with a selection of a few but very strong security features which provide a very high level of confidence. The additional security checks intervene if the first level of inspection raises doubts.

The security industry advocates a three-layered approach:

First layer: manual inspection

To make inspection a straightforward process, a large number of security features are visible to the naked eye – feel, look and tilt is the motto. You can try it yourself!

Second layer: inspection with basic tools

Inspection is done through basic tools such as a UV lamp to see fluorescent elements or a magnifying glass to see microelements.

Third layer: forensic analysis

At this stage, state-of-the-art equipment and forensic experts are required to analyze the travel document in depth.

Adding machine intelligence: Optical Machine Authentication

In many airports, the inspection is performed by machines. Before the Covid-19 health crisis, the International Air Travel

Association forecasted that passenger numbers would double over the next 20 years, at the same time increasing the number of travelers border guards would have to verify. To limit queuing and ease the border guards' task, machine inspection via eGate systems are under deployment worldwide, but they accept only electronic passports with a readable chip. If for any reason the chip of your passport is invalid, you cannot use the eGate and the document has to be verified manually, which introduces a higher risk of fraud.

This is the reason why new physical security features have been developed to enable **Optical Machine Authentication (OMA)** when the chip is not readable. For instance, the portrait of the holder can be engraved or encoded by a technology that enables OMA. Scanners or eGates can immediately confirm whether a passport is genuine or not. Only flagged passport holders will need to go through manual inspection.

This "tech for convenience and security" approach is endorsed by standardizing organizations such as the International Civil Aviation Organization (ICAO) and the International Organization for Standardization (ISO).

Your key to the world

Passports are sophisticated and well-thought-out documents. From the care governments put into the design to the complexity of the security features, **passports** truly are remarkable. Our passports are part of our culture, representing our country and even our values – a thing of pride that we hold dear to our hearts. So, whenever that is possible for you to get ready for your next adventure across the globe, **take a moment to look at your passport**, at this booklet that is your key to the world, where design and security are graciously combined to let you embark on a new journey.

https://www.passportindex.org/about.php

² https://www.interpol.int/How-we-work/Databases/Stolen-and-Lost-Travel-Documents-database