BLOCKCHAIN: READY FOR FRICTIONLESS TRAVEL?

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EXECUTIVE SUMMARY

New technologies, such as AI and blockchain, have the potential to ease international travel by facilitating identity management. We look at the current state of visas, e-visas, and passports, and the ecosystem surrounding visa outsourcing. We also explore current initiatives to simplify travel document processes before diving into projects involving blockchain technology.

The World Economic Forum is testing the concept with the government of Canada and the Kingdom of the Netherlands with the contribution of many companies. We illustrate the interest blockchain has for the industry as a whole with the example of a Silicon Valley startup.

Finally, we conclude by reminding the reader about the need for centralizing, maintaining, and distributing visa information across web-based and mobile devices. VisaHQ has been mastering this task for its entire 14-year existence.

THE SITUATION

Endless forms & countless checkpoints

Every international traveler knows that travel is often synonymous with endless forms, applications to be submitted, and countless checkpoints. From visa paperwork to customs controls, from pre-boarding security checkpoints to hotel passport controls, how many times can the same information be checked? In a world of digital devices, AI, and facial recognition there must be a better way.
In this article, we look at how new technologies, such as blockchain and AI, coupled with mobile devices, promise to revolutionize travel identity credentials, which often fall by the wayside as travelers prepare for trips.

Passports and visas are available in numerous formats and the current political climate isn’t making things simpler for applicants around the world. Many countries now require biometric data to be submitted in order to obtain visas. Furthermore, ETA and visas-on-arrival are increasingly common. Terrorism has disrupted travel in many cities and regions worldwide. We see the alarming frequency of terrorist incidents, ultimately forcing airlines and travel companies to strengthen their crisis management and contingency planning strategies. Tighter security often means stronger border controls.

It bears noting, however, that e-passports have already eased border crossing challenges by enabling travelers to self-check themselves at e-gates, now located in airports across the globe.

Destinations requesting visas decreased from 75% in 1980 to 61% in 2015. Yet, getting a visa remains a reality for many passport holders needing to travel and is an absolute necessity in order to visit certain countries. Visas remain, for the most part, an expensive and time-consuming process for governments, corporations, and travelers. Although many countries are turning to e-visas to streamline the application and submission processes (which saves at least 20% of the cost per visa), the majority of large, economic strongholds still use conventional, stamped visas. In fact, visa processing is so labor intensive governments have outsourced the task visa to third-party companies, often based in India, where the workforce is paid less.

Many corporations have managed to achieve nearly perfect end-to-end management of their travel programs. Still, the visa process is frustrating for almost all travel managers.

VisaHQ's map showing, in red, countries where U.S. citizens need a visa

Often an afterthought during travel booking, few corporations understand how to best obtain visas. Some outsource the process altogether, while others decide to control it internally. All, however, deal with red tape and roadblocks.

Could a distributed ledger technology be the solution to this complex nightmare? That is what an increasing number of government and industry players believe. The ledger distributed within a network includes linked blocks of data proving the identity of the travelers -- the blockchain.

“What came out of our research is that border security is one of the highest pain points in the traveler journey,” says Liselotte de Maar, managing director of travel industry strategy for Accenture, the group’s professional services partner. “You’re standing in line, maybe you are going to a country you’ve been to multiple times, and you still need to do the same checks, everyone is asking you the same questions, etc.”

The concept is known as a “self-sovereign digital identity” because the traveler is the only person in control of his or her identity information. The traveler decides what to share when to share it and with whom.
The idea behind self-sovereign identity is to give travelers a digital version of their proof of identity built on cryptographically linked data blocks – the blockchain – and distributed ledger technology so no single entity is in control of the data. The traveler’s personal data is not stored on the blockchain. Instead, what is stored is proof that the particular identity has been verified.

“Fundamentally, what blockchain technology solves is that digital signature problem. Every government can publish the public key they use to sign a passport, and everyone else can verify that, without any one company being in control of that directory of public keys,” says Drummond Reed, a trustee of the Sovrin Foundation, an international nonprofit established to provide a privacy-focused blockchain protocol.

According to a recent report by the World Economic Forum, forecasts indicate that cross-border travel will grow by 50% over the next decade and reach 1.8 billion international arrivals by 2030. This increase presents an opportunity for the aviation, travel, and tourism industries to further harness the economic benefits international travel contributes to GDP and job creation globally. To take full advantage of the economic opportunities this increase in demand generates, stakeholders must confront pressures that can arise on the traveler journey. Specifically, parties need to be aware of the potential risks and related security requirements, as well as the limited growth capacity of travel-and border-related infrastructure.

Experts suggest that the monetary and economic costs of the current aviation security system will reach unsustainable levels in the coming decades. Accenture, AccorHotels, Concur, Google, and many others are already working together on a project hosted by the World Economic Forum to test the concept with the government of Canada and the Kingdom of the Netherlands.

Venture Capitalists are pouring millions into identity management startups, promising to make the world a better place thanks to the magic of blockchain. One of the players in this market is a startup founded by, among others, Jerry Yang, Yahoo’s founder.
This company has been working with SITA, an IT and communication service to the global airline industry that is owned by a broad network of major air travel service providers, accounting for roughly 90% of all airlines. It has created an application that travelers can access anywhere; it will securely generate a token with all their travel documents. This allows airport and border protection staff to retrieve passport, visa, and biometric details without having to deal with physical paperwork. Additionally, travelers won’t have to navigate the hassle of bringing documentation on their trips.

There is every indication that blockchain technology is here to stay. While models are still being developed and hypotheses tested, we’re starting to see a consensus that blockchain may provide a viable – and valuable – architecture to improve nearly any system that relies on a transaction, whether that exchange is information, money, or something else altogether.

Travel documents, such as visas and passports, are obvious candidates for blockchain solutions. The enormous challenge ahead, however, will be to help governments understand the importance of this initiative. However, according to Liselotte de Maar - Travel Strategy Lead at Accenture, the potential is real and attractive for both travelers and governments. Quoted in PhocusWire in February 2018, de Maar says, “Suppose my airline allows me to board with that same biometrics and my hotel allows me to go straight up to my room because based on my face they recognize I have a reservation and I don’t have to show my passport at the front desk. And, maybe, based on my biometrics, I can even enter my hotel room. You eliminate a lot of paper checks and you are giving the traveler a choice to go through the journey without showing a passport, without showing a boarding pass, without showing reservation details at the hotel.”

Each time an entity accepts the traveler’s identification, that attestation is recorded on the blockchain, enabling the traveler to build up trusted “Known Traveler” status.

Along with streamlining travel for consumers, the idea is that this advanced screening and clearance of low-risk travelers would free border authorities to focus on passengers that are less well-known or that may present security issues. De Maar adds that partners, including Interpol, have expressed a need for this sort of individualized risk assessment because it can provide a more accurate analysis than current practices. “Making the assessment on an individual’s data set – instead of what is your country of origin and what countries did you travel in before – is something governments are looking for and it can also be convenient for the traveler,” she says.

At VisaHQ we believe that blockchain technology has terrific potential to streamline every part of global travel. We are convinced that technology can contribute to lightening the burden of identification for travelers. Our online visa application process is used by thousands of business and leisure travelers everyday. Our solution is constantly improving to enhance user experience and to streamline applications. The VisaHQ R&D team is experimenting with bots, AI and voice-controlled assistant to create a frictionless experience. We are also well aware that technology is just a piece of a much larger and much more complex puzzle.

Since visa requirements are continually changing, online forms and application process must reflect these new requirements on the fly. This is the role of our VisaHQ content specialists. They monitor every country's visa changes and update our back office in real-time to provide our users with the most comprehensive online visa application management available.

There is fantastic potential for blockchain in the identity management business, and we are closely involved in the experiment. However, today the world is counting on VisaHQ for simple, proven and efficient visa management across web-based and mobile devices. This is an expertise VisaHQ has been mastering since its inception, 14 years ago.

More on VisaHQ at www.visahq.com

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