

# GETTING BACK TO BUSINESS TRAVEL

# DIGITAL HEALTH PASSES

WHAT YOU NEED TO KNOW  
BY BCD TRAVEL RESEARCH & INNOVATION

March 2021



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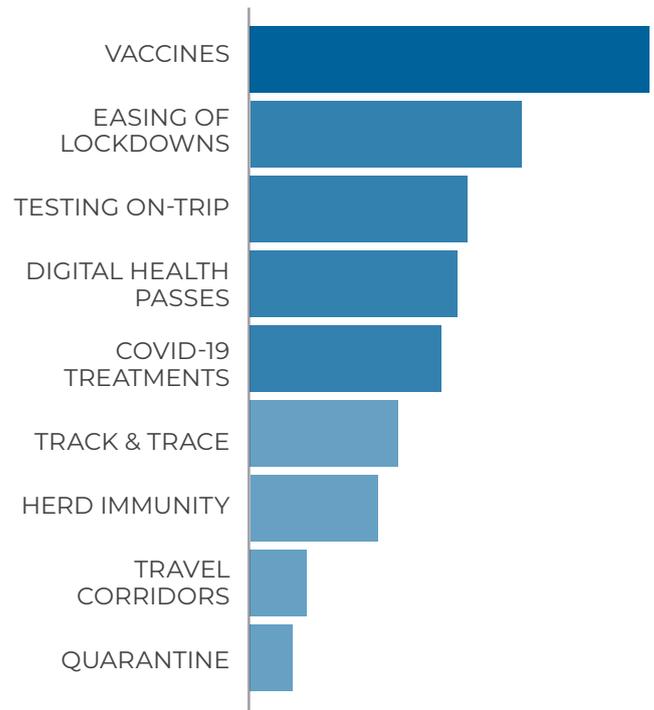
# INTRODUCTION

While acknowledging the importance of effective vaccines, travelers recognize that the resumption of regular business trips must also rely for some time on a range of other measures. That's the view shared by a panel of 844 business travelers we surveyed during the second half of February 2021. While an effective vaccine understandably tops their list of what they need to give them the confidence to resume regular travel, they recognize that other developments and measures have a place too. Among these, digital health passes will have an important enabling role to play by helping travelers navigate and comply with each destination's specific (and changing) requirements for testing, quarantine, and vaccination.

Once borders begin to reopen, travelers can expect to need to verify their health status at flight check-in and confirm it on arrival at their destination. As proof of testing and vaccination is likely to remain for some time as a solution for reopening international borders, so too will the digital health passes that support it.

We refer to these solutions as digital health passes, rather than passports, as this is the term used by most of the companies developing them. What's more, we feel the term passport implies their use will be confined to crossing borders, while digital health passes are likely to have applications beyond international travel.

## THE MEASURES NEEDED TO GET BUSINESS TRAVEL GOING AGAIN



Source: BCD Travel, Feb. 2021

# AN EFFECTIVE DIGITAL HEALTH PASS

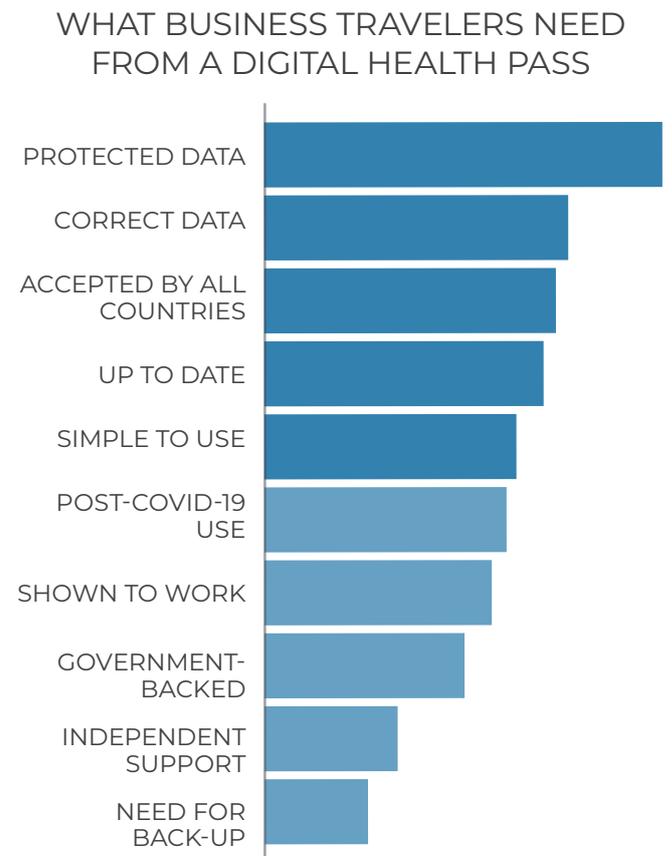
As people return to travel in increasing numbers, many countries will still have a variety of restrictions in place. Travelers will need information about each destination's requirements for testing, quarantine and possibly vaccination too. More importantly, they'll need to be able to verify they've met these requirements before they travel. This is where digital health passes come in, offering a solution that reduces both the stress of travel and the risks of a disrupted journey. In short, digital health passes will provide information, verification, and authentication.

According to the International Air Transport Association (IATA), for a digital health pass to be a successful tool for facilitating the resumption of safe travel, it needs to meet **four conditions:**

- Allowing governments to verify test authenticity and the traveler's identity
- Enabling airlines to provide accurate information to their passengers about their destination's testing and vaccination requirements, and verify that these have been met by the passenger
- Giving approved laboratories the capability to issue digital certificates, which are recognized and accepted by governments
- Providing travelers access to accurate information on testing and vaccination requirements and testing/vaccination locations, and to communicate information to airlines and border authorities

Beyond the technical side of things, our business travelers told us what's needed from a digital health pass to give them the confidence to use one. Security is top of their list. They want their personal data to be protected, and they expect it to be correct too.

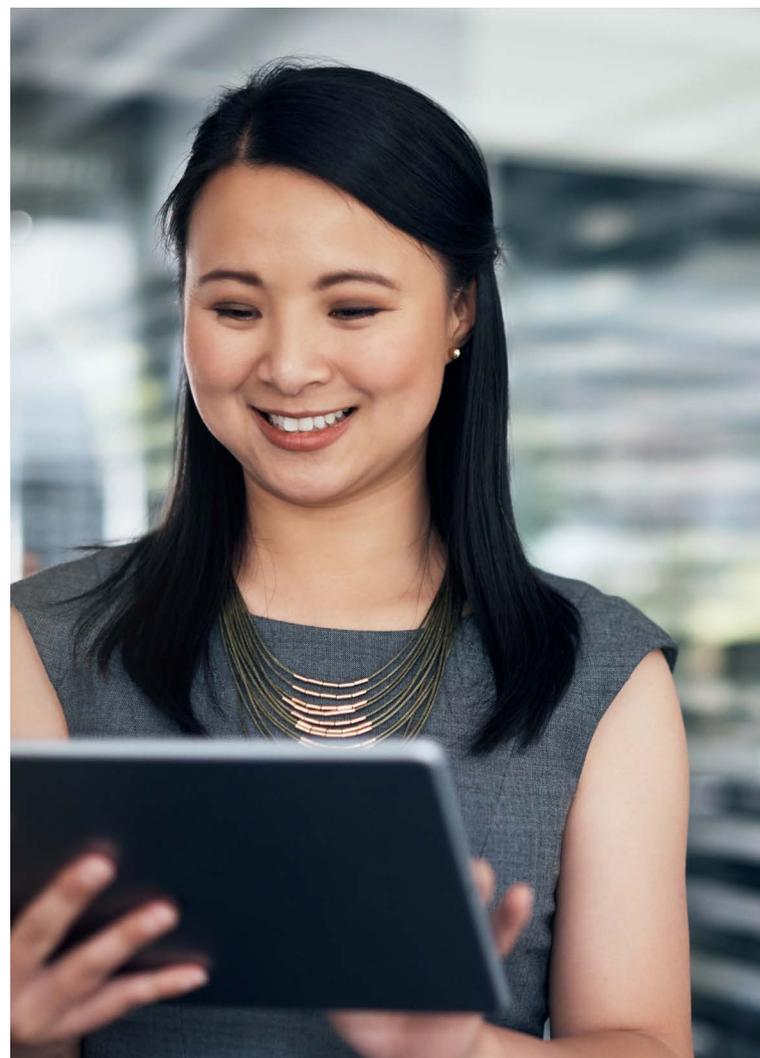
Digital health passes must also be simple to use, and before they adopt them, business travelers want the reassurance that they'll actually work. A digital health pass with a proven track record in travel will clearly have an advantage. And of course, they'd prefer the pass to be accepted by all countries, demonstrating a desire on their part perhaps for a single app, rather than having to use different digital health passes when visiting different countries or regions.



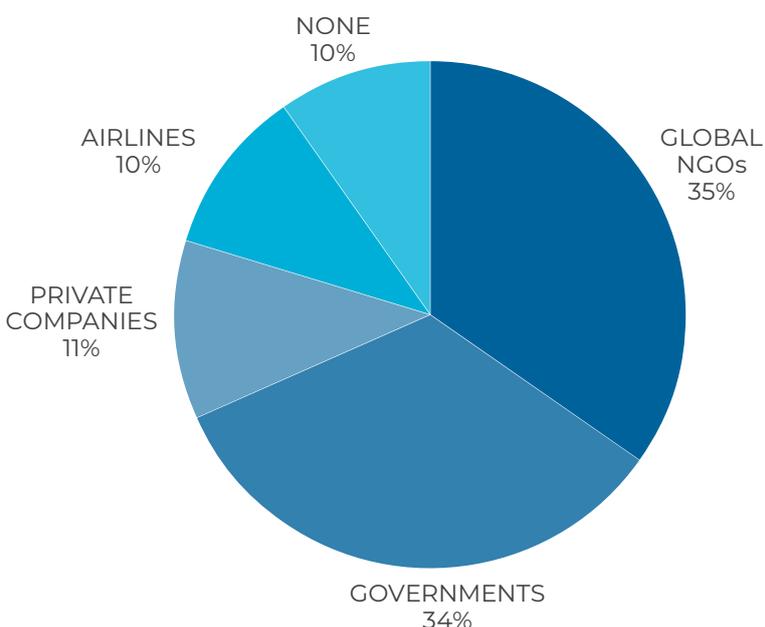
Source: BCD Travel, Feb. 2021

A number of multinational organizations, governments, airlines and independent companies are working hard to deliver functioning digital health passes. According to our survey, business travelers appear most willing (35%) to put their trust in passes that have been developed by non-governmental organizations (NGOs). In this instance, that includes bodies like IATA, the International Chamber of Commerce (ICC), the World Economic Forum (WEF) and World Health Organization (WHO). It may also include companies affiliated to multinational organizations, such as Good Health Pass, which are trying to establish standards for digital health passes, rather than developing their own offering.

Among the travelers who had already heard of digital health passes, a similar proportion (34%) were prepared to place their trust in a government-backed solution. Around only 10% would trust digital health passes created by private companies or the airlines. This might create an issue if NGO-developed apps are integrated into airline apps, rather than being available on a standalone basis.



### THE ORGANIZATIONS BUSINESS TRAVELERS TRUST TO DELIVER DIGITAL HEALTH PASSES



By exploring what each pass offers, it's possible to judge if it meets IATA's four conditions and how far it might satisfy traveler requirements. There are numerous solutions out there, and more are emerging. Some address a specific issue. Others are fully-fledged digital health passes. Some are targeting businesses rather than consumers. Amid the media hype on the subject, any development that touches on health verification is being referred to as a digital health pass or passport. So it's important to understand what each offers, in order to determine its relevance. We've reviewed the passes that we're currently aware of in some detail, looking at what multinational organizations, airlines, independent companies and governments have been doing.

Source: BCD Travel, Feb. 2021

# MULTINATIONAL ORGANIZATIONS

A number of multinational, non-governmental organizations (NGOs) are leading or participating in the development of digital health passes.

## CommonPass

Launched by the **Switzerland**-based Commons Project Foundation and the World Economic Forum (WEF), CommonPass is a travel health app that allows individuals to demonstrate their COVID-19 status while protecting their data privacy. Before boarding a flight, passengers present a QR code confirming they have satisfied their destination's entry requirements, such as a negative COVID-19 test result or vaccination by a trusted organization. Laboratory results and vaccination records may be accessed through existing health data systems, state registries or personal digital health records.

The non-profit CommonPass is built on the Common Trust Network made up of airlines, laboratories, airports and healthcare organizations. More than 350 public and private sector organizations from 52 countries have been involved in designing a common framework for safe border reopening.<sup>1</sup> **Cathay Pacific** and **United Airlines** have already trialed CommonPass on flights from **Hong Kong, London, New York** and **Singapore**. **JetBlue, Lufthansa, Swiss** and **Virgin Atlantic** are among other airlines that rolled out CommonPass on select flights during December 2020.<sup>2</sup> **Qantas** is also assessing the app. CommonPass also has the support of Airports Council International (ACI), an organization representing 2,000 airports.<sup>3</sup>

**JetBlue** is also trialing CommonPass on its flights from **Boston** to **Aruba**, after the Caribbean island's government adopted the app.

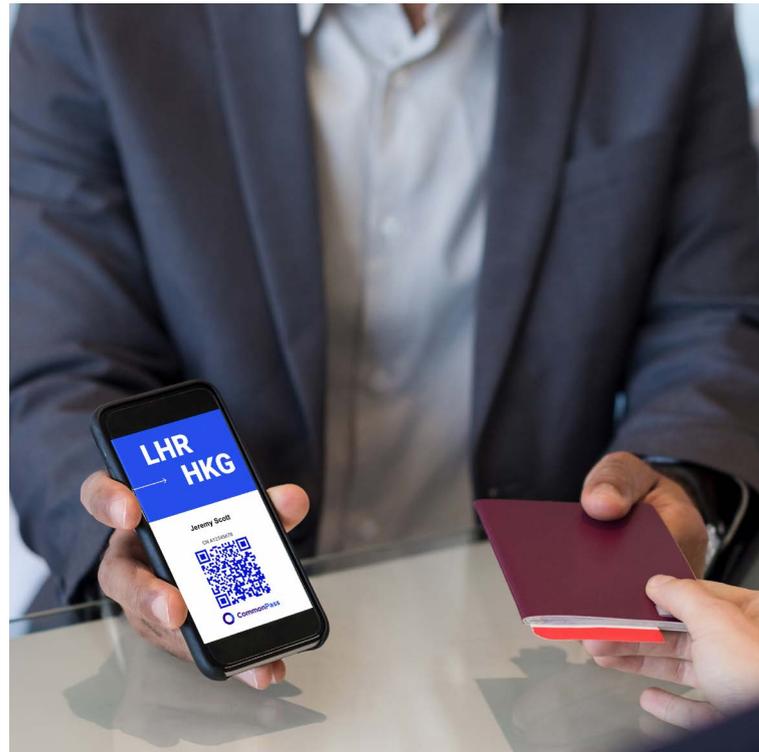


Image credit: The Commons Project

Alongside CommonPass, the Commons Project Foundation is also part of a group of health and technology companies behind the Vaccination Credential Initiative (VCI), which aims to give people digital access to their vaccination records in a secure, verifiable and privacy-preserving way.<sup>4</sup> Other organizations involved include Microsoft, Oracle, Mayo Clinic and Salesforce. The end goal is to enable consumers to store an encrypted copy of their vaccination records in a digital wallet of their own choice, such as Apple Wallet or Google Pay. Anyone without a smartphone would receive a QR code printed on paper. It will provide electronic access to vaccination, testing and other medical records. VCI could be deployed within CommonPass, enhancing its capability as a safe travel tool.

<sup>1</sup> [CommonPass](#), the Common Trust Network

<sup>2</sup> [PR Newswire](#), Nov. 24, 2020

<sup>3</sup> [CommonPass](#), Nov. 24, 2020

<sup>4</sup> [Phocuswire](#), Jan. 18, 2021

## IATA Travel Pass

As the governing body for international aviation, the International Air Transport Association (IATA) has assumed a leading role in developing and promoting the use of digital health passes. Its own solution, IATA Travel Pass, has been developed in partnership with a number of airlines, including IAG, the parent company of **Aer Lingus, British Airways, Iberia, Level** and **Vueling**.<sup>5</sup> The app is set to be launched in March 2021 and will be available, for free, to download on both Apple and Android mobile devices.

IATA Travel Pass will display test results, proof of inoculation, details of national entry rules and locations for the nearest testing centers. It also links to an electronic copy of the user's passport to prove their identity. By presenting a QR code, IATA Travel Pass enables authorities to confirm that passengers have met all entry requirements, including a negative COVID-19 result and vaccination. IATA hopes that IATA Travel Pass will be able to work alongside other digital health passes.

IATA Travel Pass comprises four independent modules, which can be individually integrated into other digital solutions or combined to deliver an end-to-end solution:

- Global registry of health requirements—passengers receive accurate information on travel, testing and vaccine requirements for their journey
- Global registry of testing/vaccination centers—enables passengers to locate testing centers that meet the requirements of their destination
- Contactless Travel App—passengers create a digital passport, receive test and vaccination certificates appropriate to their itinerary, and share testing or vaccination certificates with airlines and authorities to facilitate travel
- A digital identity to verify the owner of the certificate

A number of airlines have already signed up to trial IATA Travel Pass or some of its modules. During March, both **Etihad Airways** and **Qatar Airways** offered the pass to passengers on selected flights from **Abu Dhabi** and **Doha** respectively.<sup>6</sup> If its trial is a success, **Etihad** will offer IATA Travel Pass to other destinations. Local rival **Emirates** will trial IATA Travel Pass from April 2021, allowing passengers traveling from **Dubai** to share their COVID-19 test status with the airline before arriving at the airport.<sup>7</sup> The details will be auto-populated into the airline's check-in system.

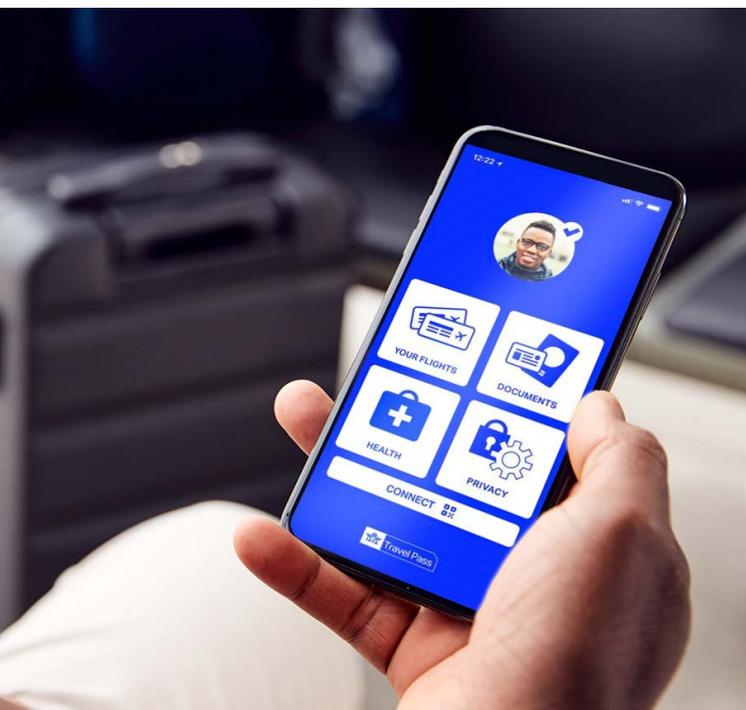


Image credit: IATA International Air Transport Association

<sup>5</sup> [Future Travel Experience](#), Nov 2020

<sup>6</sup> [IATA, Airlines](#), Feb. 3, 2021

<sup>7</sup> [BTN Europe](#), Jan. 19, 2021

Panamanian carrier **Copa Airlines** also plans to trial IATA Travel Pass during March.<sup>8</sup> Travelers on select flights from **Panama City** can create a digital health pass matching their itinerary with the health requirements of their destination and validate their compliance. **Air New Zealand** will trial IATA Travel Pass on its **Auckland-Sydney** route in April.<sup>9</sup>

Most travelers may not need to download the IATA Travel Pass app directly, as IATA expects the pass, or some of its modules, will be integrated into airline apps and check-in processes. Like other IATA protocols, it can operate in the background. Since December 2020, **Singapore Airlines** has been using parts of IATA's digital health verification framework within a one-stop online portal, where passengers can book appointments at accredited clinics in **Singapore** for pre-departure COVID-19 tests.<sup>10</sup> It generates a QR code, which airport check-in staff and immigration officials can use to quickly authenticate the results.

The airline has since decided to fully deploy the IATA Travel Pass app starting with its flights from **Singapore** to **London** from mid-March 2021.<sup>11</sup> Passengers will be able to link their COVID-19 test results using the digital ID and flight information in the app. Here they can also view their test results and confirmation to fly. If successful, **Singapore Airlines** will integrate IATA's entire digital health verification process into its SingaporeAir mobile app from mid-2021.

Japanese carrier **All Nippon Airways (ANA)** is also planning to trial IATA Travel Pass.

## ICC AOKpass

Launched in June 2020 by the International Chamber of Commerce (ICC), medical and security services company International SOS, and inspection, verification, testing and certification company SGS, the ICC AOKpass mobile app allows users to present digitally authenticated, secure and portable copies of their medical records to government authorities, border agencies and employers, without compromising their personal data.<sup>12</sup> Backed by blockchain technology, the app allows users to maintain full control over their medical information, which is stored securely and privately only on their mobile device, and not in some central location.<sup>13</sup> Originally launched as a return-to-work solution, ICC AOKpass sees itself as a return-to-travel solution too.

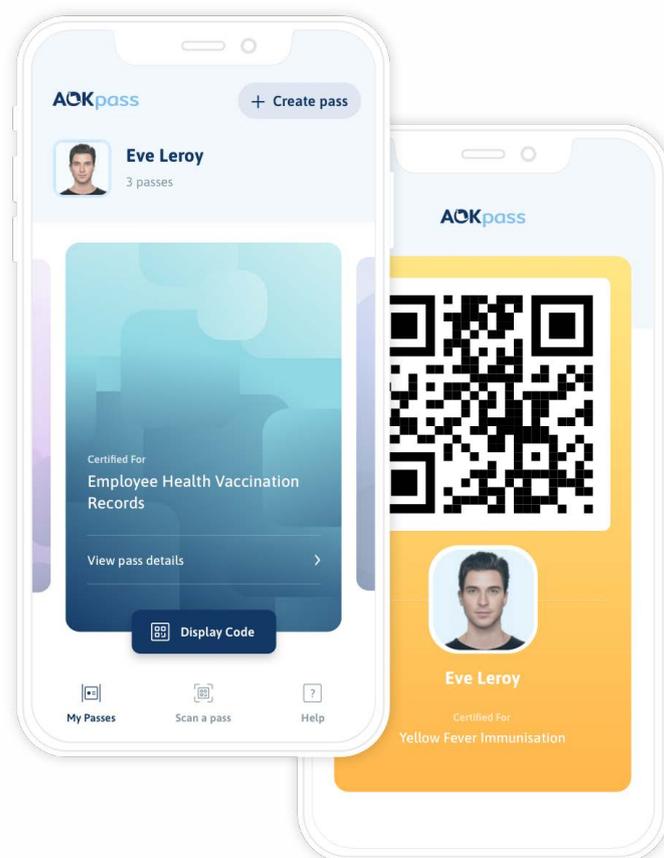


Image credit: AOKpass

<sup>8</sup> [BTN](#), Feb. 3, 2021

<sup>9</sup> [Breaking Travel News](#), Feb. 23, 2021

<sup>10</sup> [The Straits Times](#), Jan. 20, 2021

<sup>11</sup> [BTN Europe](#), March 9, 2021

<sup>12</sup> [ICC](#), Nov. 23, 2020

<sup>13</sup> [ICC](#), May 6, 2020

ICC AOKpass is making progress towards deployment in the travel industry, albeit on a trial basis. It's already used for travel between **Abu Dhabi** and **Pakistan**. And in December 2020, it was approved for its first ever use by a national immigration authority. Under a partnership with the Government of Singapore, ICC AOKpass is deployed to verify the health credentials of travelers arriving from **Malaysia** and **Indonesia**.<sup>14</sup> Before departure for **Singapore**, travelers must book a pre-departure COVID-19 PCR test from an approved healthcare provider capable of issuing digital health credentials. The test result is delivered with a unique QR code in the AOKpass app. Using the QR code to confirm their health status, travelers can be cleared more quickly through immigration in **Singapore**.

ICC AOKpass is collaborating with **Alitalia** and **Delta Air Lines**, which are trialing the pass on flights bound for **New York JFK** from **Rome's** Fiumicino airport.<sup>15</sup> After taking a rapid antigen test at the airport, travelers receive the result on the ICC AOKpass as a QR code that authenticates and securely stores the result on their mobile phone. At the time, this meant the airline could operate quarantine-free flights between Europe and the U.S.



The digital health pass is also making progress in the French market. **Air France** has trialed ICC AOKpass on its flights from **Paris** to **Pointe-à-Pitre** in **Guadeloupe** and **Fort-de-France** in **Martinique**.<sup>16</sup> Using the app is voluntary whilst the airline tests it in real life conditions and assesses customer opinion. Air France will share this feedback with other SkyTeam alliance members, which are separately assessing a range of digital health app options. Leisure carrier **Corsair** is also trialing ICC AOKpass on its flights from **Paris** to **Pointe-à-Pitre**, **Fort-de-France**, **Réunion** and **Mayotte**,<sup>17</sup> while Groupe Dubreil carriers **Air Caraïbes** and **French bee** are testing it on flights from **Paris** to **Guadeloupe**, **Martinique**, **Guyana**, **Réunion** and **Tahiti**.

ICC AOKpass is also being piloted by **Etihad Airways** from **Paris** to **Abu Dhabi**, following an initial pilot back in September 2020; the app's first live deployment for international air travel.<sup>18</sup> Passengers store their pre-departure COVID-19 PCR test results digitally on their mobile devices for verification at the airport. **Etihad** believes the need for passengers to present their medical status at time of travel will endure beyond the end of the pandemic.<sup>19</sup> As it's also trialing the IATA Travel Pass, Etihad is among a number of airlines testing different passes, possibly to see which one best suits its needs.

<sup>14</sup> [International SOS](#), Dec. 23, 2020

<sup>15</sup> [ICC](#), Jan. 5, 2021

<sup>16</sup> [ICC](#), Feb. 17, 2021

<sup>17</sup> [ICC](#), March 5, 2021

<sup>18</sup> [ICC](#), Jan. 26, 2021

<sup>19</sup> [BTN Europe](#), Jan. 26, 2021

# WHAT AIRLINES HAVE BEEN DOING

Airlines must wait for governments to decide and agree on the conditions passengers must meet to cross their borders. And they must also wait for the digital health passes to demonstrate the capability to manage these requirements effectively. In the meantime, some airlines are doing what they can for their passengers to speed up the verification process at check-in. They are deploying interim solutions until the rules are agreed and fully-functioning digital health passes that address the entire journey, and not just initial check-in and departure, are available.

## Lufthansa Group develops verification portal

**Lufthansa** Group has developed a solution purely to verify travelers have met their destination's entry requirements. Using a dedicated portal, passengers on select **Lufthansa** and **SWISS** flights can upload their COVID-19 test certificates and confirmations of digital entry applications 72 hours before departure.<sup>20</sup> The information is checked by the Lufthansa Group Health Entry Support Center, which emails passengers to confirm whether or not entry requirements have been met. Customers must still bring their original test certificates with them (to be verified at their destination).

The portal gives customers more security when planning a trip and creates a faster and smoother check-in and boarding experience. Lufthansa Group plans to roll the portal out for all flights and will integrate digital health passes in the future to support travelers as they arrive at their destination.



## AirAsia launches Scan2Fly

Pan-Asian low-cost carrier **AirAsia** has launched Scan2Fly, an artificial intelligence-based system that establishes a passenger's eligibility to travel before they arrive at the airport.<sup>21</sup> At time of booking, Scan2Fly notifies passengers if their destination country requires any health-related documents. During check-in—via the **AirAsia** website or mobile app—travelers scan or upload the required documents, which are checked by Scan2Fly. Taking into account factors such as the date and type of COVID-19 test, ensuring name matches, and confirming test results originate from an accredited clinic or laboratory, Scan2Fly delivers an approved/rejected decision.

If verification is unsuccessful, or if travelers are unable to upload their documents, they must check in at the airport for manual validation on the day of departure.

<sup>20</sup> [Future Travel Experience](#), Feb 2021

<sup>21</sup> [AirAsia](#), Scan2Fly

## Emirates works with health authority

**Emirates** is working with the Dubai Health Authority (DHA) to establish **Dubai** as one of the world's first cities to implement digital verification of traveler medical records related to COVID-19 testing and vaccination.<sup>22</sup> The agreement paves the way for contactless document verification at **Dubai** airport, improving traveler compliance with the entry restrictions imposed by their destinations. The IT systems of DHA-approved laboratories will link to Emirates' reservations and check-in systems to enable passenger health information to be shared, stored and verified, in a secure and legally compliant manner.

This solution only supports passengers departing on **Emirates'** flights from **Dubai**, and they will need to follow different procedures when flying with the airline to **Dubai**. And passengers flying from Dubai on other airlines will need to make their own arrangements for document verification. Rather than eliminating the need for digital health passes, Emirates' move appears to be the first step towards facilitating their adoption.

## British Airways enables document uploads

Starting with its flights to India, **British Airways** will allow passengers to upload COVID-19 test results and other documentation to its website, so that clearance can be granted before arrival at the airport. Three days before departure, customers receive an email asking them to sign a digital declaration form and upload the relevant documents via the Manage My Booking section. The airline checks that travelers have met the entry requirements. Although it offers this service, **British Airways** continues to evaluate different health pass options.



## United Airlines' Travel Ready Center

Passengers flying with **United Airlines** can view and manage COVID-19-related entry requirements for their trip in the airline's Travel Ready Center.<sup>23</sup> Launched in January 2021, the web- and app-based facility lists COVID-19 testing options and allows travelers to upload any testing and vaccination certificates that are required. After designated United staff have manually verified the documents and confirmed they meet the requirements of the destination, passengers can download their boarding pass before heading to the airport. The scope of the Travel Ready Center will be expanded to include booking COVID-19 tests, video chat with an agent and details of other requirements for international travel, such as visas.

<sup>22</sup> [BTN Europe](#), Feb. 25, 2021

<sup>23</sup> [BTN Europe](#), Jan. 26, 2021

## American Airlines deploys VeriFLY®

American Airlines is actively deploying a digital health pass. Produced by identity assurance company Daon, the VeriFLY® mobile wellness wallet is designed to help travelers navigate travel's new complexities by helping them understand the COVID-19 requirements at their destination and streamline airport check-in by digitally verifying that such requirements have been met.<sup>24</sup> It allows real-time verification of COVID-related credentials, such as diagnostic test results, health questionnaires and (in future) proof of vaccination, which are linked to an individual's identity.<sup>25</sup>



Image credit: American Airlines



Image credit: American Airlines

Currently, VeriFLY's core proposition is verifying a traveler has met the conditions needed to fly to a certain destination and has the necessary documents. This has made check-in more efficient for the airlines that use it – largely removing the need for manual verification by check-in staff and reducing check-in queues ahead of the return of higher passenger volumes. Originally seen as a solution to aid pre-departure verification, VeriFLY will evolve its scope, developing QR codes and NFC (near field communication) capabilities and integrating with airline check-in systems. As such, VeriFLY is currently geared towards verification at point of departure only. Its airline partners are working with destination countries to incorporate VeriFLY into the arrivals process too, so that customers have an expedited verification process at both ends of their journey.

The end product of using VeriFLY is quite simple—a green tick indicates a passenger is ready to fly and confirms to check-in staff that the necessary requirements have been met. The pass is then active.

<sup>24</sup> [American Airlines](#), Nov. 30, 2020

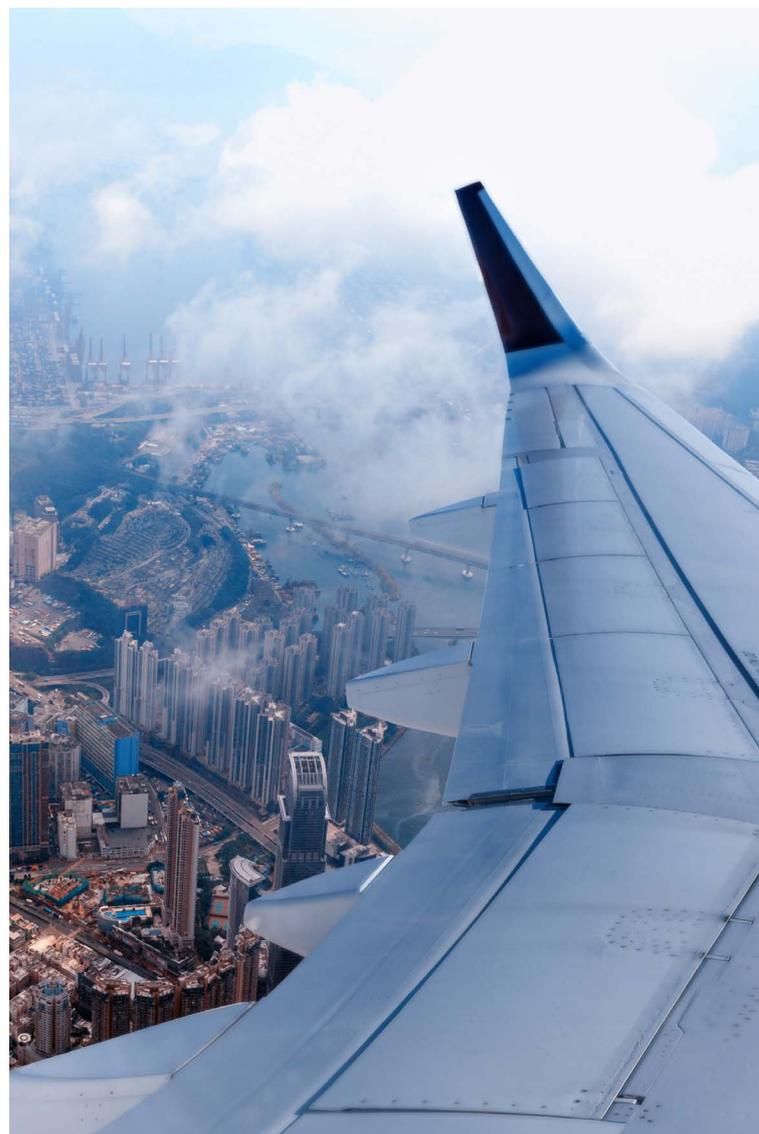
<sup>25</sup> [Daon](#), VeriFLY

To ensure it keeps up to date with the latest travel rules, VeriFLY uses IATA Timatic as its primary information source. The solution is well-established as a tool used by airlines and travel agents to verify travel document requirements. However, during the pandemic, airlines have sometimes heard about rule changes direct from the authorities before IATA has, and so VeriFLY leverages its airline partnerships to capture these changes ahead of time.

**American Airlines** initially offered the VeriFLY app for flights to Miami from international destinations across Latin America. As the U.S. government mandated negative COVID-19 test results for all inbound international passengers, the airline extended VeriFLY to cover travel to the U.S. from all international destinations. Transatlantic joint venture partner **British Airways** followed **American** by trialing VeriFLY on its flights from London to the U.S. from early February 2021,<sup>26</sup> quickly rolling the app out across its entire international network.<sup>27</sup> Use of the app is optional. At the same time, another of American's partners, Alaska Airlines, has introduced VeriFLY for travelers arriving in the U.S. on international flights.<sup>28</sup>

American Airlines is working with destination countries to further streamline the process and have them incorporate VeriFLY into their arrivals processes, so that travelers can enjoy an expedited verification throughout their journey.

VeriFLY is not confining itself to airline partnerships. It should soon announce its first deal with a global hotel chain.



## Ryanair creates travel wallet

Irish low-cost carrier Ryanair launched a COVID-19 travel wallet in March 2021, enabling customers to store their test and vaccine data on the airline's smartphone app.<sup>29</sup> The COVID-19 Document Holder can upload PCR test results, vaccination certificates and any other COVID-19-related documents that may be required for travel.

<sup>26</sup> [Breaking Travel News](#), Feb. 1, 2021

<sup>27</sup> [BTN Europe](#), Feb. 11, 2021

<sup>28</sup> [BTN](#), Feb. 4, 2021

<sup>29</sup> [Ryanair](#), March 10, 2021

# INDEPENDENT SOLUTIONS

## Airside Mobile

Airside has created a one-stop digital ID and health passport solution.<sup>30</sup> The company is already known for its free Mobile Passport app, which U.S. and Canadian passport holders can use in designated fast track lanes at U.S. customs and immigration at more than 30 airports. By partnering with Vision-Box, a Portuguese biometric seamless travel management solutions provider, Airside has developed its Digital Identity & Health Passport App.<sup>31</sup>

The Airside App does more than let travelers securely manage health-related records, including test results and vaccination certificates. Its wider digital ID capabilities include the verification of identity credentials, such as the user's passport or driving license. Users control with whom they share their information and for how long. And it's only stored on a traveler's encrypted device. Airside's vision is for a "curb-to-curb, departure to return" solution covering all touch points in the journey.

Airside hopes to leverage its experience in U.S. government-authorized customs and passport control to support the deployment of the Airside App.

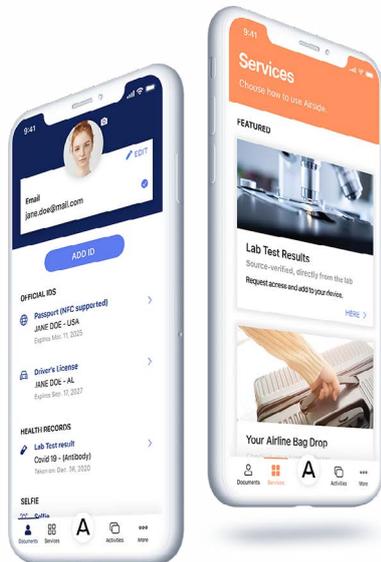


Image credit: Airside

## Augmented Borders

Augmented Borders is a border control solution developed by IDEMIA. It's a suite of solutions to help governments better manage their borders, which includes the physical infrastructure needed to interact with travelers (counters, kiosks, gates) and the management systems that enable and control border crossings. Pre-border processing, smart border entry/exit systems, biometric and self-service immigration. Health passport becomes an integrated feature.

## Certus™ myHealth Pass

Swiss security company SICPA has partnered with governments, local authorities and private sector organizations to develop myHealth Pass, which enables real-time health status management and safe mobility. Designed to meet the highest levels of data security and personal privacy assurance via blockchain protection, myHealth Pass ensures secure and anonymous issuance, use and verification of certified data.<sup>32</sup>

The myHealth pass enables universal and independent verification with a single click, scanning a unique QR code. It works for both digital and paper certificates, authenticating the issuer and the protected data. It does not appear to be a consumer-facing solution. Rather, it appears to be targeted at organizations looking to verify individuals' health credentials.

<sup>30</sup> [Forbes](#), Feb. 25, 2021

<sup>31</sup> [Airside](#), Feb. 2, 2021

<sup>32</sup> [SICPA](#), CERTUS™ myHealth Pass

## CLEAR Health Pass

Health Pass by CLEAR is a mobile solution that allows users to complete health screening, originally targeted at enabling people to return to the office, visit sports venue and attend events. CLEAR uses biometrics and simple mobile enrollment to create a single, touchless ID.

In operation since 2019, CLEAR claims to have more than 5 million users, with more than 22 million verifications made since the app's launch. As well as more than 25 sports partners, CLEAR also works with 36 airports across the U.S. It also claims Delta Air Lines, United Airlines, American Express and TSA Pre Check to be among its strategic partners.

During the pandemic, CLEAR has adjusted the positioning of Health Pass, so that it can be used for COVID-19 vaccine records, health surveys, providing proof of COVID-19 testing and vaccination and for temperature screening.

Enrollment in Health Pass is free and requires users to add identity documents.

## CoronaPass™

CoronaPass is an app powered by process automation company Bizagi to support COVID-19 policy implementation and risk management.<sup>33</sup> Rather than consumers, it's targeted at organizations, which can use the app to create different pass types, including Vaccine Passports.

CoronaPass has been used to get health professionals back to work safely. In June 2020, it was deployed in Greece as part of the country's response to the pandemic.<sup>34</sup> By using CoronaPass to apply for a pass based on COVID-19 test results, users could demonstrate their health status and move more freely.



## IBM Digital Health Pass

Digital Health Pass, part of IBM Watson Works, is designed as a smart way to enable people to return to workplaces, schools, stadia or airline flights.<sup>35</sup> The pass enables organizations to verify an individual's health credentials.

IBM Digital Health Pass is blockchain-based with privacy at its center. Users maintain control of their personal health information and can share it in a way that is secured, verifiable, and trusted.

During March 2021, the State of **New York** began a pilot program of IBM Digital Health Pass, with the aim of giving residents a simple, voluntary and secure way of providing proof of testing and vaccination.<sup>36</sup>

IBM notes that its pass can be customized to support the travel and transportation industries. It also sees sport and entertainment venues and employers has target audiences for the product.

<sup>33</sup> [CoronaPass](#)

<sup>34</sup> [Bizagi](#), June 15, 2020

<sup>35</sup> [IBM](#), IBM Digital Health Pass

<sup>36</sup> [IBM](#), March 2, 2021

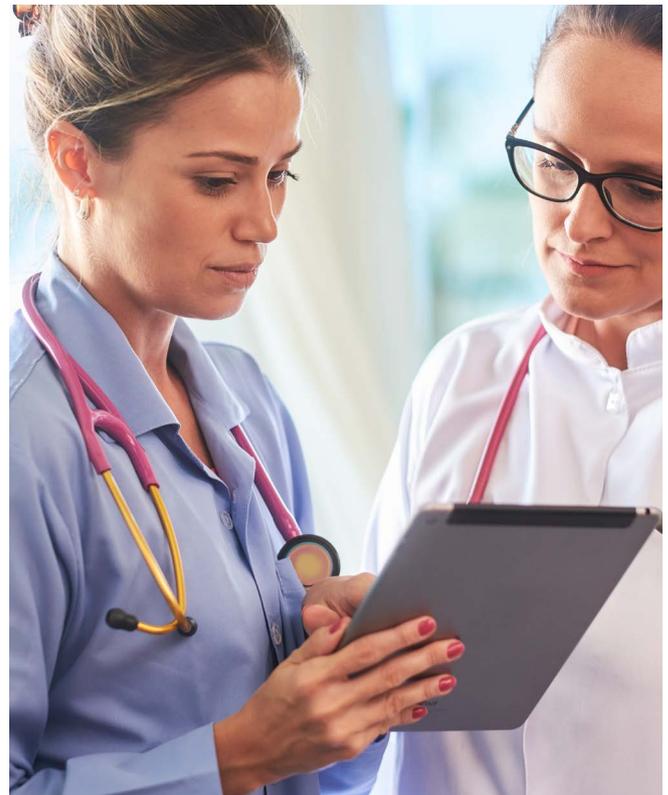
## Immunitree

Kuala Lumpur-based digital health company Immunitree has developed a vaccine platform and immunity passport, using a block-chain-based registry management system to keep patient data safe.<sup>37</sup> It begins as a low-cost system vaccine tracking system linking private and public healthcare systems. COVID-19 test results and vaccination certificates can be uploaded into a blockchain, preventing fraud, fake tests and allowing for electronic verification. By providing an electronic record of a person's full testing and vaccination history, the Immunitree Passport will allow safe and quarantine-free travel.

Immunitree does not have access to patient data. Personal information, such as passport details, vaccine records, past medical history and test results are stored in a blockchain, encrypted and only accessible by the individual using a private key.

The Immunitree Passport has a number of useful features:

- Alert system—where a second vaccine dose is required, it sends out a reminder ahead of time, and a confirmation once it's been administered. It also warns users if they have yet to upload negative COVID-19 test results.
- Vaccine record—it keeps a detailed record of vaccinations, including information on date of inoculation, vaccine manufacturer, and where the vaccine was administered.
- Test results—as these are held in a blockchain, the authorities can be confident they are genuine.
- Other disease applications—vaccinations for other diseases may also be recorded.



Using the Immunitree Enforcement app, airlines, immigration authorities, hospitals, insurance companies, restaurants, hotels, etc. are able to read a QR code produced by the Immunitree Passport, giving them electronic access to a user's full testing and vaccination history. What the Immunitree Passport appears to lack at the moment is a capability to inform travelers of the requirements at their destination and ensure that these are met.

Having been approved by the Singaporean authorities, Immunitree plans to launch in March to enable travel between **Malaysia** and **Singapore**. The company is relying on local partner Affinidi to get the Immunitree Passport approved by immigration authorities around the world.

While it appears that Immunitree will be provided to governments and other organization at no charge, users can expect to pay an unspecified annual subscription to use the service.<sup>38</sup>

<sup>37</sup> [Immunitree](#)

<sup>38</sup> [The Moodie Davitt Report](#), Feb. 10, 2021

## SITA Health Protect

Air transport communications and information technology company SITA has launched SITA Health Protect, a solution for securely sharing and verifying the passenger health information, including test certificates, and declarations required for travel.<sup>39</sup> It links testing and health passes with existing passenger and border processes.

With this information, airlines can decide at point of check-in if a passenger is authorized to travel. By enabling the use of smart devices to verify someone's health status, it also reduces direct contact between passengers and staff at the airport. SITA Health Protect is backed by SITA's own global IT infrastructure and services.

SITA Health Protect has two modules

- SITA APP Protect—allow airlines to decide whether or not a passenger may travel<sup>40</sup>
- SITA Health ETA—provides authorities with the health data needed to safely reopen borders, authorizing travelers before they even depart<sup>41</sup>

SITA is clearly targeting airlines, airports and immigration authorities with SITA Health Protect and it seems unlikely to be made available directly to consumers.

## V-Health Passport™

Created by U.K.-based technology company VST Enterprises (VSTE), the V-Health Passport is an ID system that can securely hold and display health status information about a passport holder.<sup>42</sup> The V-Health Scan permissions feature allows other items to be viewed from the passport, including travel, event tickets and payment.

Once registered via the V-Health Passport™ portal or the mobile phone app, users can request a COVID-19 test or vaccination from one of more than 250 test centers across the **U.K.** A home COVID-19 test kit is also available at a cost of £69.99 in U.K. The company plans to extend this service to **Ireland** and the **U.S.**<sup>43</sup>

Once administered, a negative result or confirmation of vaccination is uploaded to the user's V-Health Passport™. It generates a unique VCode®, which can be scanned from a 2m distance to confirm the user's health and vaccination status. The digital health pass is available both under the V-Health Passport™ name and for white-labeled use.



Image credit: V-Health Passport

<sup>39</sup> [SITA](#), SITA Health Protect

<sup>40</sup> [SITA](#), SITA App Protect

<sup>41</sup> [SITA](#), SITA Health ETA

<sup>42</sup> [V-Health Passport](#)

<sup>43</sup> [V-Health Passport](#), Press & News

## Yoti Digital ID

The Yoti Digital ID app was originally developed to allow individuals to create a digital identity, which they own and control, enabling them to verify safely and securely their identity when required by various organizations.<sup>44</sup> It can also be used for age verification, e-signing and authentication, and it's this last capability that Yoti could leverage to offer the app as a pandemic-related travel solution.

So far, Yoti has been deployed as a digital ID card by a number of companies, and it has also been adopted by government bodies, financial and professional services, retail and child protection organizations. Biometrics enable users to present or unlock their encrypted personal details. The app shares only the specific information required by an organization. While the app is free to download, businesses usually pay Yoti a fee each time it's used to verify an individual's information.

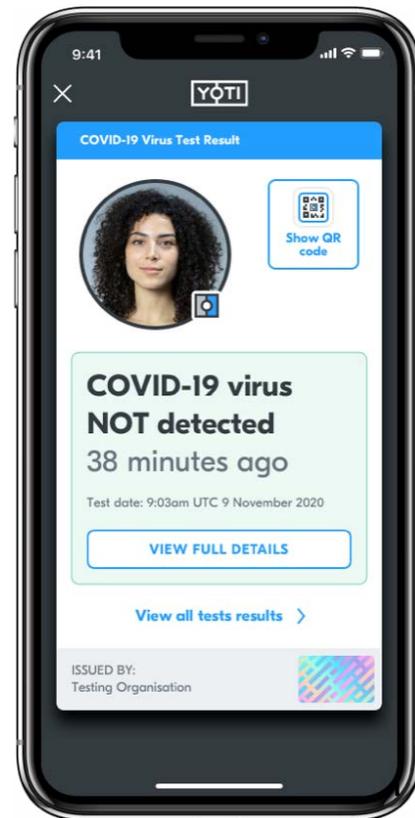


Image credit: Yoti



In the travel sector, Yoti has been deployed in an in-house program for U.K. airline **Virgin Atlantic**, where it's supported pre-flight COVID-19 testing for cabin crew and pilots since October 2020. Using the *FRANKD with Yoti* COVID-19 testing solution, crew scan a unique QR code on the *FRANKD RT LAMP* test bag to add their identity to the test.<sup>45</sup> Results are then delivered direct to the user's Yoti app, where it's securely encrypted and stored on their mobile phone and easily shared with the tap of a button. On the basis of this application, it seems Yoti has the infrastructure needed to scale up to include vaccination verification too. Indeed, it claims it can scale to provide both API information (from a passport chip) combined with health information to any appropriate party within travel's ecosystem.

Elsewhere in travel, Cardiff Airport is due to start using the Yoti service, while it has also been assessed by London Heathrow Airport.

<sup>44</sup> [Yoti](#), Digital ID

<sup>45</sup> [Yoti](#), Oct. 4, 2020

# GOVERNMENT HEALTH PASSES

Governments are independently making plans to launch their own digital vaccination passes, recognizing that people will need easily accessible certificates for travel and possibly for taking part in certain activities. In fact, governments may regard free movement at home as more of a priority than free movement internationally.

**Denmark** planned to launch a simple coronavirus digital passport by the end of February 2021.<sup>46</sup> Launched online on Danish digital health portal sundhed.dk, the passport will initially be available to business travelers. It can be rolled out so quickly as it's based on existing national infrastructure and the national vaccination database. A more advanced technical solution should follow in three to four months. Neighboring country **Sweden** plans to launch its own government-backed digital vaccine passport by the middle of 2021, assuming international standards have been established.

In the **U.K.**, the National Health Service (NHS) is testing a newly-developed COVID-19 immunity and vaccination passport.<sup>47</sup> Developed by facial biometric authentication company iProov and technology company Mvine, the system enables a user's COVID-19 test results and vaccination status to be registered without disclosing their identity. It does not capture or store any identity data, relying instead on biometrics, which are linked to the reference number on a test or vaccine certificate.

The Mvine-iProov pass is designed to integrate into the NHS's existing digital infrastructure. Initial trials should be completed by the end of March 2021.

**Saudi Arabia** launched its own digital health pass in January 2021.<sup>48</sup> At this stage, the government has not made a health pass a requirement for travel, but it acknowledges some countries may impose vaccine-related travel restrictions in the future.

These countries are trailing behind **Israel**. Introduced by its Health Ministry, an app-based green passport is required to enter certain places and to participate in certain activities.<sup>49</sup> Anyone without a mobile phone can also print a green passport certificate that includes a scannable QR code. The passports are issued only to people who have been vaccinated or have recovered from COVID-19. The green passport program has enabled registered gyms, theaters, hotels, concert venues and synagogues to reopen. Some workplaces may also require employees to present a green passport or submit to a COVID-19 test every 48 hours. And the passports are beginning to play a role in travel too. As the country starts to reopen its borders, only green passport holders can fly internationally without first seeking government permission.<sup>50</sup>

**China** has recently joined Israel in rolling out an international vaccine health certificate, which it expects other countries to recognize, making international travel easier.<sup>51</sup> The pass is available in digital and paper formats and includes details of a traveler's COVID-19 vaccination and any test results, which authorities can confirm using a QR code. The certificate is currently only available for use by Chinese citizens and is not yet mandatory.<sup>52</sup>

<sup>46</sup> [Healthcare IT News](#), Feb. 5, 2021

<sup>47</sup> [Healthcare IT News](#), Jan. 15, 2021

<sup>48</sup> [Arab News](#), Jan. 9, 2021

<sup>49</sup> [The Jerusalem Post](#), Feb. 28, 2021

<sup>50</sup> [The Jerusalem Post](#), March 2, 2021

<sup>51</sup> [The Straits Times](#), Feb. 3, 2021

<sup>52</sup> [Shine](#), Mar. 11, 2021

# DIGITAL HEALTH PASS BENEFITS

Digital health passes can help travelers manage their travel and health documentation digitally and seamlessly throughout their journey, improving the travel experience.

With constantly changing entry and departure testing (and possibly vaccination and quarantine) requirements, digital health passes can help streamline the health verification process, giving travelers the peace of mind that they meet their destination's requirements even before they set out for the airport. And passengers can be confident that everyone on board their flight has met the same requirements for testing and health checks.



As **American Airlines** has found, digital health passes can speed up the airport check-in process, as agents no longer have to spend time manually confirming that passengers have met the conditions set by their destination and have the correct documentation with them. Passengers can still choose to present printed versions of their health documents, but they might face long queues while these are verified.

The risk of fraud when using digital health passes should also be much lower than the paper documents they replace, particular if the entire process, starting with testing or vaccinated is fully digitized. Even with digital passes, however, some countries may still demand paper copies of any documents.

In time, digital health passes may become part of the wider travel ecosystem, with airlines exploiting existing partnerships with hotels, for example, to have the same pass accepted by all suppliers involved in a traveler's trip. This could reduce the need for travelers to hold multiple passes.

# CHALLENGES AND CONCERNS

## Too many apps to choose from

With so many companies and organizations developing digital health passes, there are fears the offering could become as fragmented as in other travel technology segments.<sup>53</sup> This increases the risk that travelers might be asked to download multiple apps to prove their health status at various points during a single trip, creating unnecessary additional complexity. Digital health pass providers are aware of this issue and believe it could be resolved through the adoption of global standards and agreements on interoperability.

Digital health pass providers will need to agree standards for:

- The source of information about each destination's requirements to travel
- A list of accredited testing laboratories and vaccination clinics, which can also share results digitally
- The means by which a traveler's health status is quickly verified; be it scanning a QR code or a bar code
- Verifying a traveler's identity, ensuring that this has been done effectively at all stages



## Protecting personal data

Among the business travelers we surveyed, protecting their personal data was the top requirement they expected from any digital health pass. Travelers are clearly concerned about how their personal information will be stored and shared. They expect their health information to be kept safe and secure. It's critical for digital health passes to be user-controlled, consent driven systems. And they'll need to be reliable too, keeping information safe and using biometrics to confirm identities and prevent fraud. A number have turned to blockchain-based solutions to give users the certainty that their information is being kept safe and secure.

IATA recognizes the importance of data protection, placing customer privacy at the heart of the design of IATA Travel Pass. There is no central database storing personal information. Information is shared only at the traveler's discretion, in a safe and secure way.

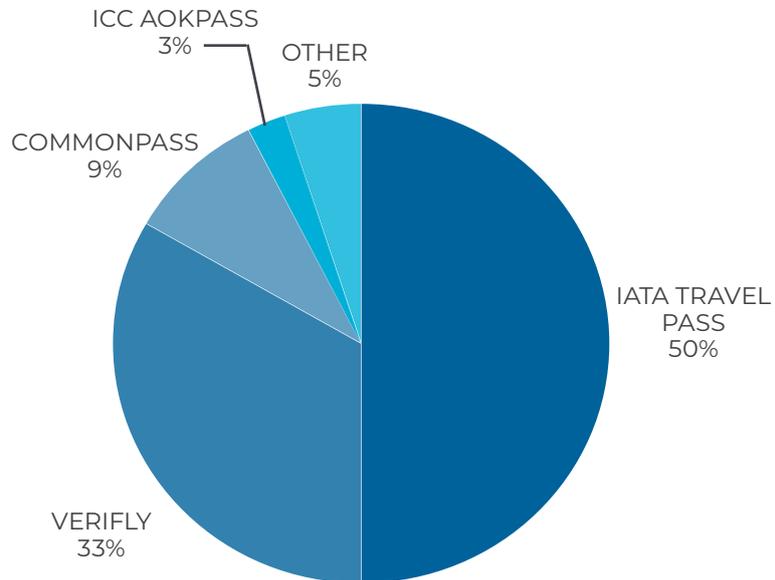
<sup>53</sup> [PhocusWire](#), Feb. 3, 2021

## Communication challenge

Awareness among business travelers of the key players in the digital health pass sector is presently quite low. In our survey, only around one-fifth of travelers had heard of any of the providers. Clearly a communications challenge lies ahead for both travel managers and digital health pass providers, should there be widespread adoption of this solution.

Among the business travelers who had heard of the companies developing digital health passes, a clear winner emerges. IATA's **Travel Pass** appears to have done a good job in raising awareness, with half of business travelers having heard of the product. Possibly due to its well-publicized adoption by **American Airlines** and **British Airways**, **VeriFLY** is also well known, with one-third of travelers aware of the product. However, awareness of some of the early pass developers, such as **CommonPass** and **ICC AOKpass** is much lower. Few of the other pass developers have yet to register with business travelers, with the exception **CLEAR Health Pass**.

WHICH DIGITAL HEALTH PASSES HAVE TRAVELERS HEARD OF?



Source: BCD Travel, Feb. 2021

# STANDARDS AND COLLABORATION

## The need for interoperability

International coordination on digital health passes can help avoid the complexity that will inevitably arise from the uncoordinated development and deployment of multiple apps. The coexistence of multiple health passes may still be possible if there is a commitment to open standards and interoperability among developers. Daon, the company behind VeriFLY, has engaged with both the World Economic Forum and IATA on this issue. It hopes that other organizations will commit to interoperability as they launch their own passes.

## Good Health Pass promotes cooperation

One organization trying to establish standards and encourage cooperation is the **Good Health Pass Collaborative**. It brings together leading companies and organizations from across the technology, health and travel sectors to create

a blueprint for interoperable digital health pass systems.<sup>54</sup>



BCD Travel is the first travel management company (TMC) to have signed up. Good Health Pass Principles have been endorsed by a number of organizations working on digital health passes, including Airside, Daon (VeriFLY), ICC AOKpass, the Commons Project Foundation, Mvine and Yoti. Other travel-related members include the Airports Council International, Amadeus, Ferrovial Airports and SITA.

BCD Travel's Director, Global Crisis Management, Jorge Mesa represents the interests of the TMC's corporate clients' through the pursuit of standardization and scalability of the initiative. BCD's involvement also means it's well-placed to provide corporations with further guidance on digital health passports, an important part of the next step of the recovery.

**“We welcome the Good Health Pass as a collaborative effort for a safe return to travel. In workshops and discussions we’ll represent our corporate clients’ interest in the standardization and scalability of the initiative. Furthermore, we’ll continue to play an active part in the flow of information which will give corporations further guidance in this important next step of the recovery.”**



**Jorge Mesa**  
Director, Global Crisis Management, BCD Travel

<sup>54</sup> [Good Health Pass](#)

## EU setting standards

Governments also recognize the need for standards. European Union (EU) leaders have reached consensus on creating a standard digital “vaccine certificate” to help ease border restrictions and revive travel.<sup>55</sup> Officially called the Digital Green Certificate, the EU’s vaccine passport will be free of charge, bilingual (issuing member state official language and English), interoperable, secure, non-discriminatory and available in digital and physical formats using a QR code.<sup>56</sup> It will comprise three separate certificates: vaccination certificates, negative test certificates, and medical certificates for anyone who has recovered from COVID-19.

Rather than creating a new database, the European Commission plans to build a gateway and support member states to develop the software needed to verify the certificates. The Digital Green Certificate is intended to be a temporary measure and will be suspended once the World Health Organization declares an end to the pandemic. EU member states must approve the certificate in a European Council meeting scheduled for March 25.



## World Health Organization supports standards

The World Health Organization (WHO) also recognizes the needs for standards and a trust framework for the development of digital certificates to confirm COVID-19 diagnostics and vaccination.<sup>57</sup> It’s working with a number of agencies, including UNICEF, GAVI, ITU and EC DG SANTE to achieve agreement on common standards and governance for security, authentication, privacy and data exchange. It is focusing specifically on vaccination certificates, but the principles it establishes, could be deployed across a digital health pass’s architecture.

<sup>55</sup> [Politico](#), Feb. 26, 2021

<sup>56</sup> [Euronews](#), March 17, 2021

<sup>57</sup> [World Health Organization](#), Dec. 2, 2020

# SUMMARY

## A clear role to play

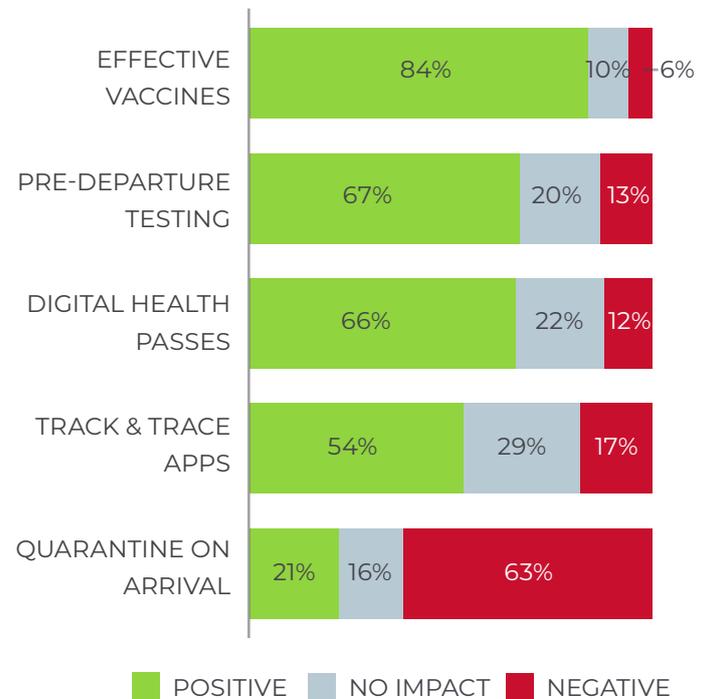
While the level of recognition of the different digital health pass offerings may presently be quite low, and many of the solutions still have some way to go in their development and roll-out, the value that they offer on the path to safe travel is clearly understood by business travelers.

Among the COVID-19-related measures being introduced to increase people's confidence to travel, digital health passes score highly among business travelers, with 66% telling us the apps positively impact their willingness to travel. That's virtually the same response we received for pre-departure testing. Only the availability of effective vaccines scores higher.

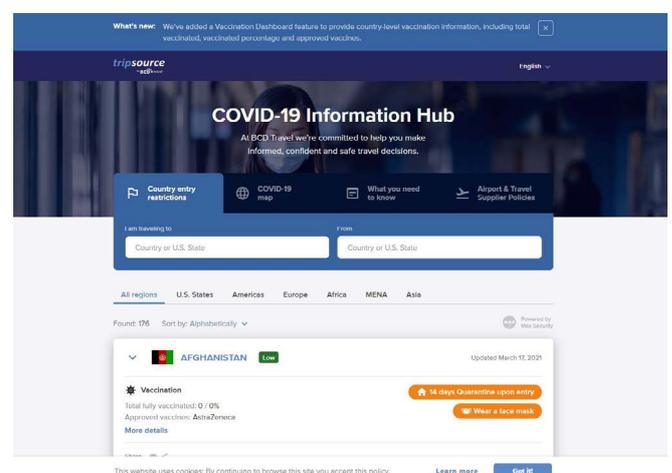
Digital health passes are important for the enabling role that they can play, enhancing the value that vaccines and testing can offer on the path to safe travel. Travelers need to provide proof of vaccination and testing. This is something digital health passes can do in a secure and seamless way. The pandemic has made travel more complex; digital health passes can help ease some of the pain.

You can find out more about the entry requirements in different destinations in our [COVID-19 Information Hub](#). Our [Back to Travel](#) guide can also provide the answers travel managers need to reimagine their travel program; lead their companies back to business safely, efficiently and smartly; and prepare for very different times ahead.

## HOW COVID-19 MEASURES AFFECT THE WILLINGNESS TO TRAVEL



Source: BCD Travel, Feb. 2021



## Comparing digital health passes

If it's possible to choose which digital health pass(es) to adopt, travel managers and/or travelers need to consider the functions and capabilities each one offers. Some of the things to consider include:



- The price/cost of the pass. Many are free to download, but there may be hidden costs, such as a fee each time the pass is used
- Existing and planned functionality of the pass
- Simple functionality that clearly indicates a traveler is "good to go"
- Interoperability capabilities with other digital health passes; a useful feature when an itinerary involves multiple destinations and/or airlines
- The pass developer's engagement with efforts to establish industry standards and enable interoperability, improving the chances that the app will widely accepted
- Confirmation that the app provides sufficient and up-to-date information about the entry requirements of each and every destination
- The app's ability to deliver information that is relevant to a user's location, e.g. listing only nearby COVID-19 testing centers
- Existing track record in the travel sector. Is the pass already being used by airlines and border control?
- Authorities' ability to verify health credentials even when the traveler is offline
- Scalability as a global travel solution
- Travel patterns and the digital health passes that might be preferred by regularly-visited destinations
- The pass recommended by airlines or alliance group that account for the largest share of travel in a company's program
- How the pass protects a traveler's personal information

## Share your thoughts

Do you have questions or comments regarding this report? Please email [Mike Eggleton](#) or [Jorge Mesa](#) to share your thoughts.



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## About the BCD Travel survey

Between February 17 and 26, 2021, we surveyed a panel of English-speaking business travelers from around the world on their views about travel and COVID-19. Responses were received from 844 participants: 67% came from travelers based in North America, with 20% coming from those based in EMEA (Europe (including the U.K.), the Middle East and Africa).

Prior to the pandemic, nearly 40% of respondents were only making domestic journeys, with 48% taking both domestic and international trips, leaving just 12% making only international trips.

## About BCD Travel

BCD Travel helps companies make the most of what they spend on travel. We give travelers innovative tools that keep them safe and productive and help them make good choices on the road. We partner with travel and procurement leaders to simplify the complexities of business travel, drive savings and satisfaction, and move whole companies toward their goals. In short, we help our clients travel smart and achieve more. We make this happen in 109 countries with a global client retention rate of 98%, the highest in the industry. For more information, visit [www.bcdtravel.com](http://www.bcdtravel.com).



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