



2017

AIR TRANSPORT INDUSTRY INSIGHTS

# THE PASSENGER IT TRENDS SURVEY

BOARDING PASS



FLIGHT  
**XS 803**

GATE  
**B21**

SEAT  
**A32**

Terminal 2



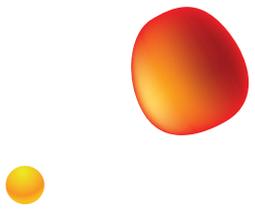
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# FOREWORD



Today almost every passenger expects to manage their travel using a smart device and this is dictating the services they expect from airlines and airports. The good news is that when technology is used by passengers the investment pays off as their satisfaction levels rise.

In this our 12th annual Passenger IT Trends Survey, co-sponsored by Air Transport World, we asked passengers to rate their satisfaction at every step of the journey. The results paint a picture of “tech” users who are more satisfied with the experience than those using face-to-face services. Easy to use tech services can remove complexity and simplify the journey for passengers, which increases satisfaction. This in turn leads to a greater level of willingness among air travelers to use new tech services to have a more enjoyable trip.

Baggage and biometrics are two areas in particular where investing in technology can deliver a better passenger experience.

Technology is already supporting the passenger and their baggage as nearly half are self-tagging their bags and many more would do so if the technology was available. They are also keen to get information about the status and location of their bag. This may be provided as more airlines get ready to meet the IATA Resolution 753 which requires them to capture baggage information at key points of the journey.

Identity checks are a vital element of the passenger journey and often a pain point for travelers. Our survey this year shows that automated identity checks at passport control and boarding increase passenger satisfaction. It is encouraging that when passengers use biometrics they are even more satisfied with the experience. This demonstrates passenger acceptance of biometrics as a secure technology to deliver a seamless journey.

It is very clear that most passengers are no longer deciding whether they should use technology but which technology they should use. They want to make each step of the journey as easy as possible. Our survey highlights where airlines and airports have the opportunity to offer services that will improve the passenger experience but they must make sure that those services are simple enough to be used by a large proportion of passengers.

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# DID YOU KNOW

% of passengers who have responded to the 2017 Passenger IT Trends Survey

Almost

90%

book their flight with **self-service technologies**



59%

would use a **Digital Travel Concierge** regularly if available

92%

are extremely or very satisfied with their **check-in experience**



## BOOKING

## CHECK-IN

18%

use a **bag-drop station**



64%

would **track their bag** in real-time via a mobile app if available

57%

would definitely use **biometrics** instead of passport or boarding pass across the journey



## BAG DROP

## ID CONTROL

52%

use **WiFi** after passing through security



74%

would use **alerts on flight and gate** pushed to their mobile if available



90%

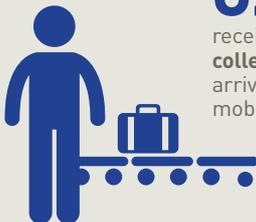
are extremely or very satisfied with their **boarding experience**

## DWELL TIME

## BOARDING

62%

received **real-time bag collection details** upon arrival (22% on their mobile device)



90%

are extremely or very satisfied with **digital destination services**

52%

prefer **accessing entertainment services** on a seatback touchscreen



## BAGGAGE CLAIM

## ON BOARD





# TECH BOOSTS PASSENGER SATISFACTION

For most of passengers it's hard to imagine traveling without a smartphone, lap top, or perhaps, a smart watch. Mobile devices are the ultimate travel tool and help manage the steps of the journey, keeping passengers informed and entertained. In fact, 70% of passengers carry two or more devices when they travel and almost all (98%) carry at least one.

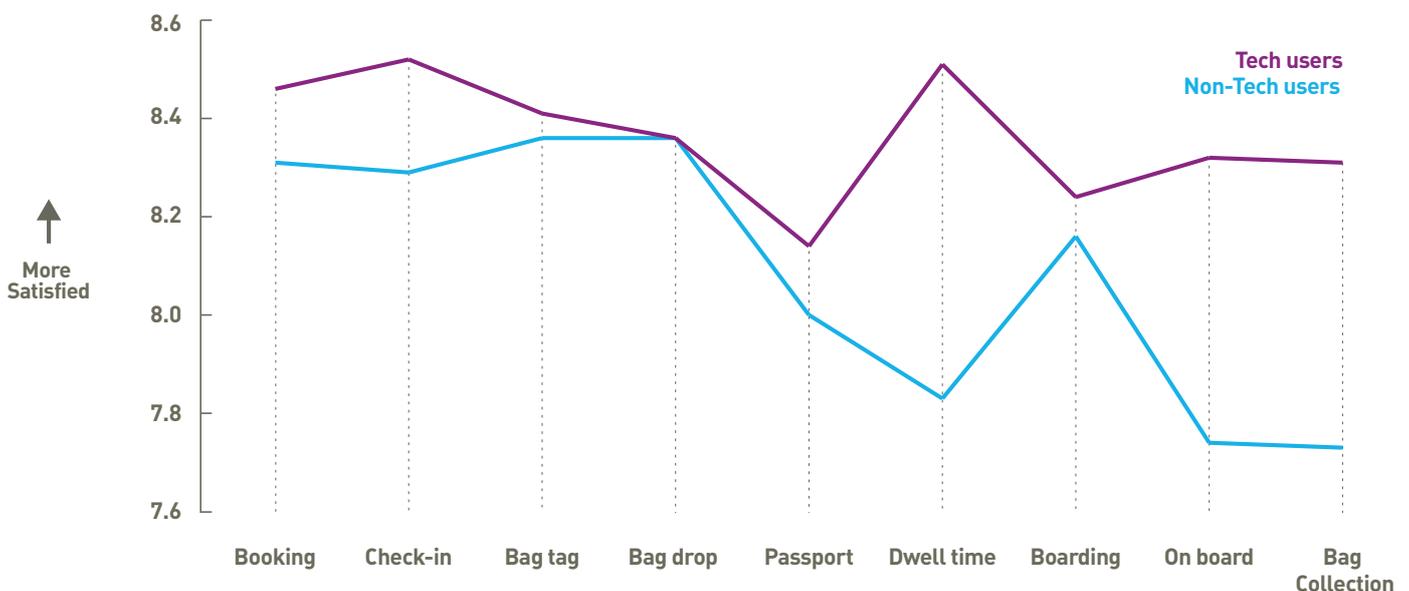
Passengers are not just carrying their devices, they are happy to use them throughout the journey. In fact, those who used self-service technology, either on their own devices or via airport facilities, to process any stage of their most recent trip reported higher levels of satisfaction at that journey stage than the non-tech users. This difference was particularly marked at three stages: "dwell time" when they were enjoying the airport's airside amenities; when they were onboard; and while they were waiting at the carousel for their luggage.

Technology users' satisfaction scores at these stages tracked comparatively up to 8% higher than passengers who used face-to-face processes.

Overall, this year's survey shows that passengers rate their journey very highly with an overall satisfaction rate of 8.2 out of 10, but this is boosted even further when technologies such as mobile services and biometrics are used. The ability to streamline and speed up journey processes or to improve the passenger experience will drive usage of self-service technology on future trips.

## SATISFACTION OF TECH VERSUS NON-TECH USERS AT EACH STEP OF THE JOURNEY

2017 rating on a scale from 0 to 10 (most satisfied)



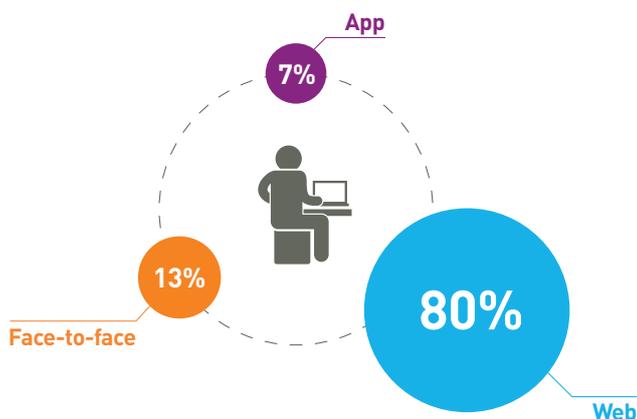
## TECH FOR BETTER BOOKING AND CHECK-IN

Passengers are already at ease using technology to research, book and prepare for a trip from the comfort of their own desktop or smart device, at home, in the office, or at a kiosk in the airport. When they arrive at the airport they are increasingly open to using other tools to get themselves – and their bags – from departures to boarding and on to arrivals at their destination.

The overwhelming majority of passengers (almost 90%) booked their last flight using self-service technologies. Websites were the favorite option, with a small group using apps. Just over half (54%) used self-service or automatic check-in for their flights. Uptake was dependent on the choice of technology available on their day of travel, but the majority used self-service to check-in for their flight with web and kiosk check-in the most popular. Whatever method they used, 92% were very, or extremely satisfied, with their check-in experience.

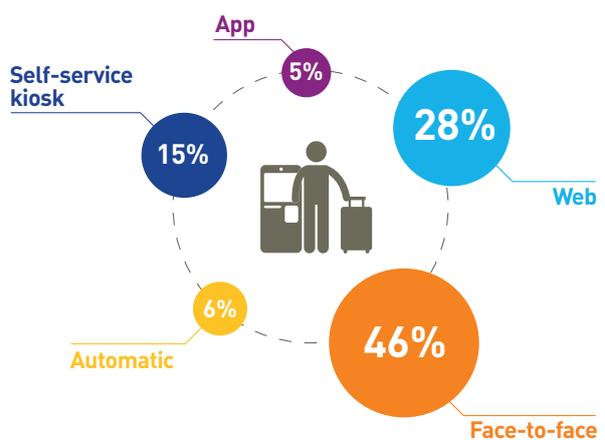
### HOW PASSENGERS BOOK

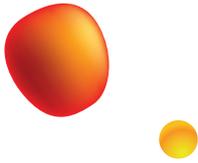
% of passengers adopting specific channels to book their flight in 2017



### HOW PASSENGERS CHECK-IN

% of passengers adopting specific channels in 2017 to check in





## TECH FOR BETTER BAG TAGGING

The next journey step where self-service technology is poised for mainstream acceptance is bag tagging. In some regions airlines now enable their customers to download and print their own bag tag as part of the online check-in process. The tag is simply folded into a clear plastic holder and attached to the bag. In parallel, many airports are rolling out self-service kiosks for passengers to print out tags to attach to their luggage. In fact, nearly half (47%) of all passengers took advantage of a self-service tagging option on their most recent trip, which is a healthy increase from 31% in 2016.

The most enthusiastic self-tagging adopters take more than three trips per year and are predominantly younger travelers, aged 25-44. This hints that there may be an issue to be addressed around familiarizing travelers about new technology processes. Doing so may increase uptake of these services.

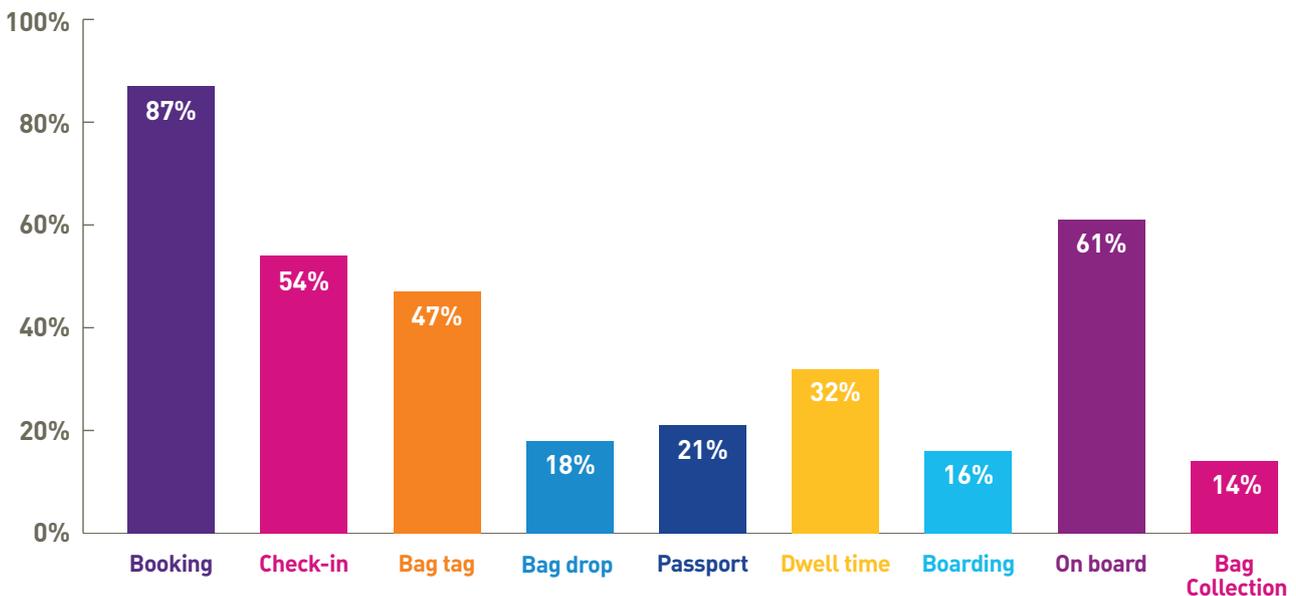
## TECH FOR BETTER BAG DROP

While passengers are willing to tag their bags, most continue to drop off their bag with an airline agent. Use of this face-to-face service is decreasing slowly (down to 82% from 85% in 2016), with almost a fifth (18%) of passengers using a self-service bag drop during their most recent trip (up from 14% last year).

Passengers may be more willing to use self bag drop than the current adoption level suggests as 43% say they would use it on their next flight. Self-service bag drop stations are not currently available at all airports, which may be holding back uptake. However, as the air transport industry rolls out the technology, it is also evolving to become more user-friendly, requiring minimal input from passengers. The latest bag drop stations automatically detect and scan bag tags and dispatch luggage into the bag handling system. More availability and increased usability should lead to higher levels of use in the coming years.

## TECHNOLOGY ADOPTION ACROSS THE JOURNEY

% of passengers in 2017



## TECH FOR BETTER BAG COLLECTION

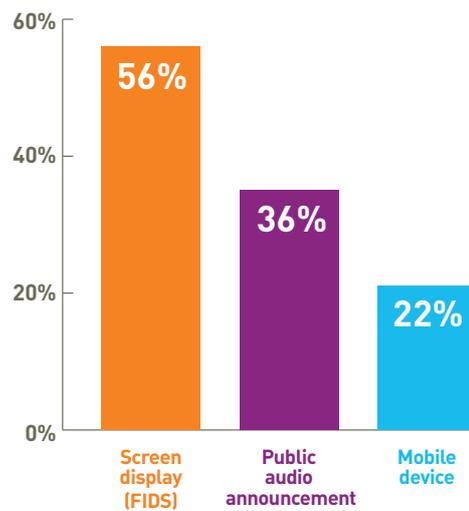
When asked to rate their satisfaction at each stage of their journey, passengers are most satisfied with the pre-travel steps from booking to bag drop. Satisfaction at other steps is also high, for example 90% are very or extremely satisfied with their boarding experience. The stage with the lowest satisfaction level is bag collection – in line with negative emotions perceived in last year's survey.

However, technology is helping to relieve the anxiety of waiting for bags to arrive, by actively providing baggage collection information to passengers. On their last flight, over half (58%) of passengers who checked in bags received real-time bag-collection information upon arrival, which improved their satisfaction levels, especially if it included an indication of how long they would have to wait.

Twenty-two percent of this group received their bag details directly on their mobile phones, which bumped up their satisfaction levels by an extra 10%. The rest of this group accessed real-time bag collection information via airport screens (56%) or public audio announcements (36%).

## HOW PASSENGERS RECEIVED BAG COLLECTION INFORMATION

% of passengers in 2017



# MY JOURNEY, MY WAY – WHAT PASSENGERS WANT

There is an expectation among passengers that they will be using more self-service tools, from booking to baggage services. They also want more personal – and less generic – information to help them manage their trip. The good news for them is that new self-service technologies are being made available along the journey – in particular at passport control.

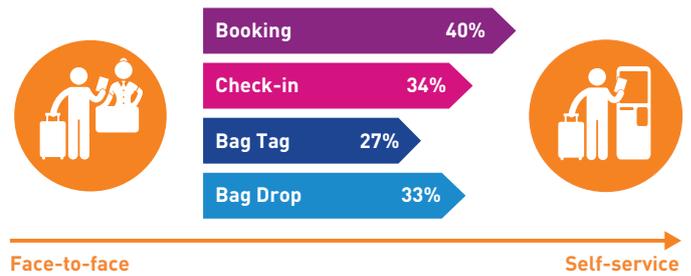
## SELF-SERVICE

Face-to-face services will continue to be eroded by take-up of self-service technology. The minority of passengers who booked face-to-face on their last flight is likely to decrease further as 40% of them say they would switch to self-service in future. Similarly, over a third (34%) of those who checked-in via an agent also expect to use self-service or automatic check-in on their next trip and are pretty much equally split in their preference for web and kiosks for check-in.

The switch to self-service for baggage is progressing too. More than a quarter of passengers who had an agent assist them with bag tagging (27%), are ready to switch to self-service tagging or a permanent tag. One third (33%) say they would switch to self-service bag drop for their next flight. Among those already self-tagging their bags or using a permanent tag, a majority are happy with the technology they are using.

## WILLINGNESS TO SWITCH FROM FACE-TO-FACE TO SELF-SERVICE

% of passengers in 2017





## AUTOMATED ID CONTROL - THE NEXT SELF-SERVICE OPPORTUNITY

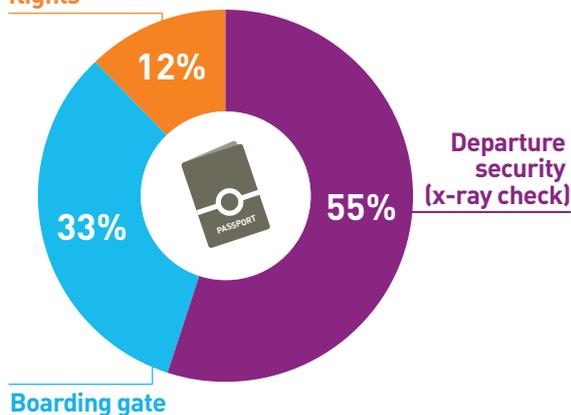
Passport control has one of the lowest satisfaction ratings of all the stages of the passenger’s journey.

Technology and self-service solutions are being rolled out for automated ID control and 37% of passengers took advantage of them on their last flight. In doing so, they take more ownership of the ID check and mitigate uncertainties such as dealing with border agents or getting stuck in slower moving queues. The majority of passengers already using automated ID control are either “pampered” travelers, who can afford a high standard of service, or “hyperconnected” digital natives, who want to maintain control and place a high priority on efficiency. (More details of the different types of passenger travel styles and mindsets in the Appendix.)

The majority of these passengers (55%) used automated ID control at departure security (x-ray checks), a third at boarding gates and 12% at international arrivals. Satisfaction levels are high among passengers using any biometric options (8.4 on a scale of 1-10). Passengers using biometrics during departure security feel better about their experience (on average 4.6% more satisfied) than those using face-to-face controls.

### WHERE PASSENGERS USED AUTOMATED ID CONTROL % of passengers in 2017

Arrival for international flights



A majority of passengers are open to the idea of using a single biometric token to expedite their way through the airport without having to show their passport or boarding pass. This technology is currently transitioning from an experimental to a live process. However, if this service was available on their next flight, 57% of passengers say they would definitely use a biometric token.

**57%**  
WOULD DEFINITELY USE BIOMETRICS INSTEAD OF PASSPORT OR BOARDING PASS ACROSS THE JOURNEY



An emerging minority – 4% of those passengers adopting automated ID control – used a single biometric token on their last flight. Biometric solutions to simplify and speed up ID checks are likely to crop up at other stages in the airport journey: airlines and airports are already testing facial recognition at bag drop stations and at boarding.

Despite this enthusiasm for automated ID controls, 33% of passengers have privacy concerns about biometric recognition at airport borders and the proportion is higher among those already using automated ID control. This seems initially surprising, but could be because people who are more comfortable adopting new tech are also more aware of its potential pitfalls.

# APP APPEAL

An app evolution is under way as airlines and airports innovate new services to support passengers as they travel. These initiatives are designed to provide personalized and real-time information and services to support the journey through the airport, on to the aircraft and at arrivals at the destination airport.

At the same time app usage is becoming less important at the preparatory stages of the trip. Just 7% of passengers used an app on any mobile device to book their last flight (down from 16.5% last year). While 46% of this group say they would use apps again, almost as many – 38% – would switch to web. At check-in, only 5% of passengers used an app (12% in 2016), however the vast majority (88%) of them say they will continue to check-in via apps on their next flight, suggesting they are pretty happy with this service.

Passengers' preferences at booking and check-in, may simply be a result of increased availability of responsive mobile websites and better data connections, making web an easy option. Another barrier may be having to download a new

app every time they fly with another airline. Having said that, sensor technologies, such as beacons, which trigger contextual messages for app users, offer a fresh and compelling reason to download an airport or airline app.

An indication of future app opportunities can be gained from some of the features already on offer. A few airline apps already allow passengers to track their bags in real-time throughout the journey, just like tracking a parcel. The International Air Transport Association's (IATA) Resolution 753 will require its member airlines to keep track of every item of luggage, from start to finish by June 2018, so we may see more airlines offering bag tracking services via apps in future. There appears to be a ready appetite for this functionality among air travelers, as 64% of passengers say they would definitely use an app to track their bags in real-time on their next flight.

Some airlines enable their passengers to have a cup of coffee waiting for them in the airline lounge, pre-order onboard meals, download magazines, give feedback on their flight – even make and track their visa application – all via an app.

In the not-so-distant future passengers may even be customizing their personal space in the cabin via an airline app as leading aircraft manufacturers and suppliers are exploring concepts to allow passengers to adjust their lighting, their seat set-up, check if the lavatory is vacant and control their inflight entertainment.



## REAL-TIME AND RELEVANT INFORMATION

There is a discernible desire among passengers for new mobile services to help them better manage their journey by providing personalized live information about their flight, their baggage and how they reach their gate (or other key airport locations). Three quarters (74%) of passengers say they would definitely use flight and gate alerts pushed to their mobile devices if available and 57% would use airport wayfinding.

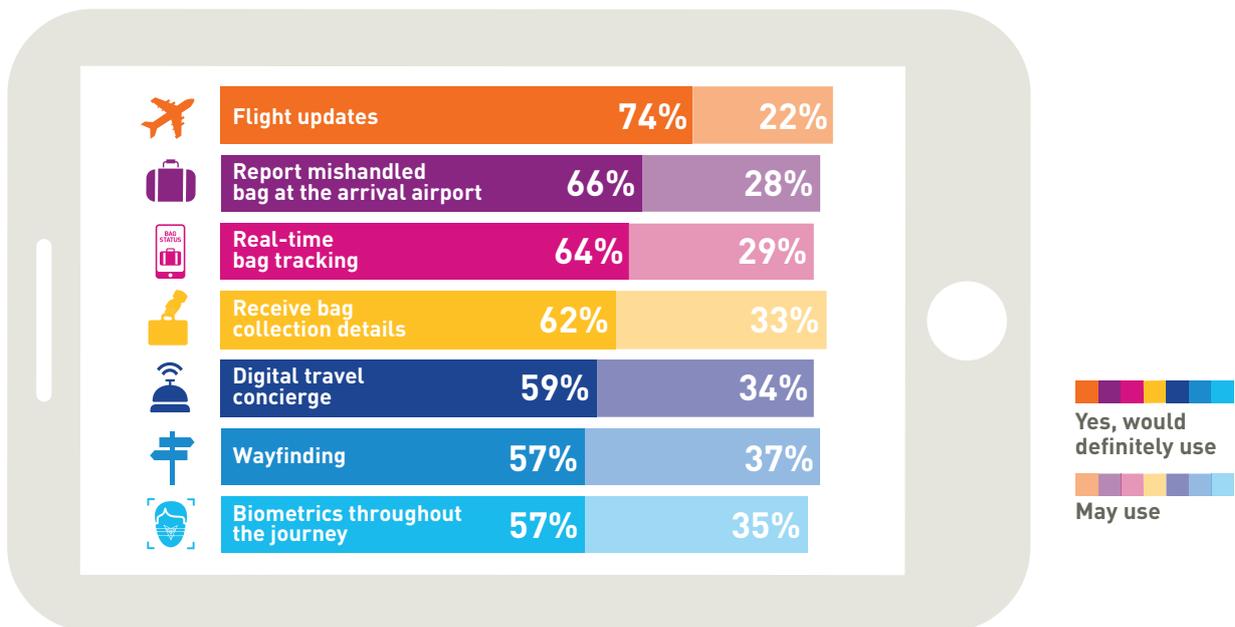
Airports and airlines have started to address these aspirations. Sensor technologies, including beacons, are being deployed across airports to enable them and their airline partners to provide maps and location-based alerts to help passengers find check-in areas, departure gates or the nearest restaurant. The most recent implementations can even enable augmented reality wayfinding tools to show passengers directions in the camera view of their mobile device.

Three of the top four mobile services passengers say they would definitely use, if available, relate to tracking the status of luggage. This is a reflection of the concern passengers feel about what's happening to their bags, which was also noted in last year's report. As well as the desire to track their bags in real-time via an app, detailed earlier, 66% would report mishandled bags via their smartphone or tablet at the arrival airport; and 62% would receive bag collection details on their smartphone or tablet.

The desire for mobile travel services that allow passengers to personalize their trip or make their journey better by booking extras such as taxis, hotels and tickets for attractions is underscored by the 59% of passengers who say they would use a digital travel concierge.

## WHICH MOBILE SERVICES WOULD PASSENGERS USE?

% of passengers in 2017





# CONNECTED PASSENGERS - GETTING EXTRA

The unbundled airline seat is now part of the sales mix for many traditional airlines as well as low-cost carriers. Travelers are well versed in ordering additional services, such as priority boarding or paying for hold luggage, to make their journey easier. Passengers also want to buy entertainment and other indulgences to add to their enjoyment and there is an emerging category of connected services to meet these needs.

Airlines services such as seat upgrades and baggage fees are the most frequently booked extra – by half of passengers – and airport services, airport shopping and onboard services such as games, movies, digital newspapers and meals are purchased by around 40%.

## BETTER CONNECTED - AT THE AIRPORT

Restaurants, bars and shopping remain the traditional way we enjoy our time at the airport before we fly. However, technology has become just as important in the dwell time mix. One fundamental requirement for travelers carrying smart devices is access to the internet. When it is available, WiFi is the most used service: 52% of passengers used WiFi, compared to 46% who went to restaurants and bars, and 44% who spent time shopping. WiFi usage might be even higher if it was simpler for passengers to navigate through sometimes competing service offers and clumsy logging-on processes.

**52%**

**USE WIFI AFTER PASSING THROUGH SECURITY**



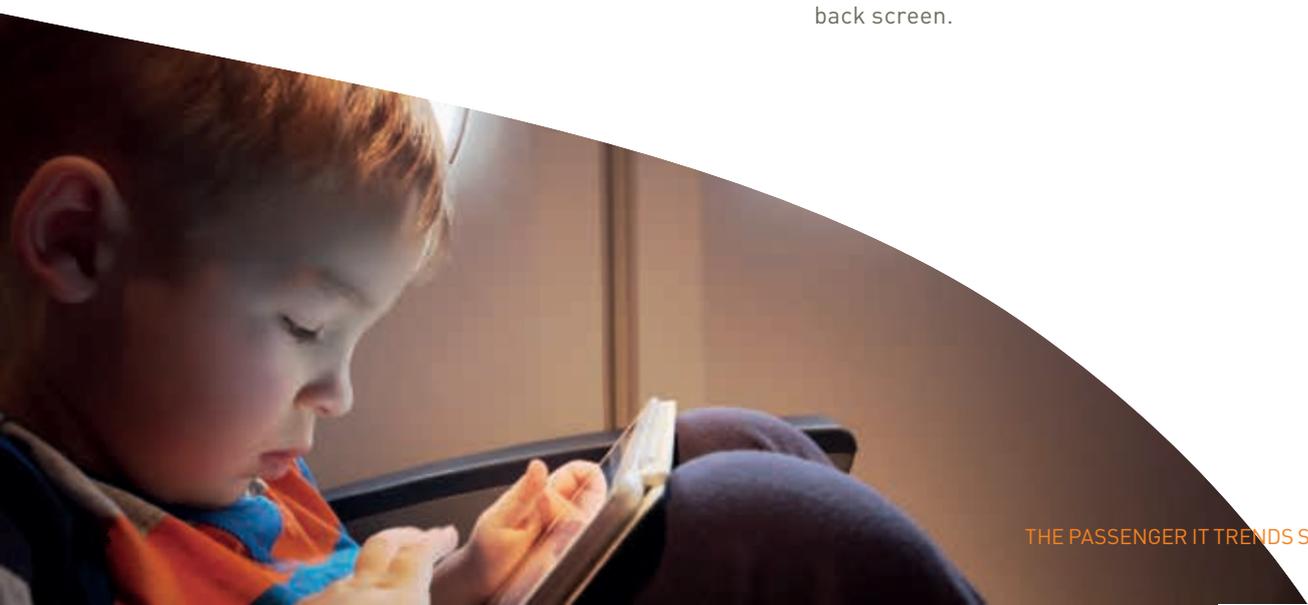
Travelers who used airport WiFi report high levels of satisfaction with this facility (84% were very or extremely satisfied), more satisfied than they were with restaurants and bars (81%) and shopping (83%).

The ability to rest and recharge batteries (mental as well as electronic devices) is another key desire, not just for those using frequent flyer lounges. Rest zones are used by about a third (34%) of passengers when available. Some airports are now providing sleep pods where you can take a nap in private, relax or access the internet. A more recent development has been the introduction of hooded “silent chairs”, which reduce the ambient noise for the person sitting inside. Typically, they have a power socket, USB port and integrated speakers, allowing users to play music from their own device and tune out from the bustle of the airport.

Entertainment while waiting for a flight, or to download from a kiosk in preparation for the journey ahead, is another win for passengers. While self-service media kiosks, massage chairs and movie theaters have not been rolled out at a majority of airports, satisfaction levels among passengers using them on their most recent trip is high: 88% were very or extremely satisfied with media kiosks, and 83% with massage chairs, movie theaters and similar amenities.

## BETTER CONNECTED - IN THE AIR

Increasingly passenger experiences in the air are an extension of relaxation at dwell time. Technology similarly plays an active role in delivering the services they want, whether that is watching a movie, catching up on emails or keeping in touch with family and friends via social media, even, on some airlines, the ability to order snacks and drinks via the seat-back screen.



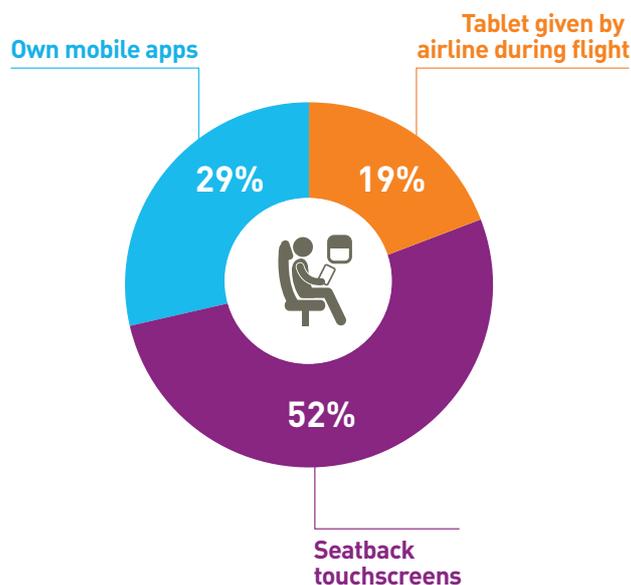
Something to drink and a bite to eat are the top priorities for passengers during their flight (used by 59% and 45% respectively if available), after which entertainment such as movies, music and games or infotainment such as news, magazines and books are the most popular inflight services (used by 37% and 30% of passengers).

About half (52%) would prefer to access onboard digital services via a seat back touchscreen. And with almost every passenger now traveling with their own device, over a quarter (29%) would prefer to access onboard digital services via an app on their own device.

Plans to roll out onboard connectivity continue to escalate among both traditional and low-cost carriers, although it will take time for services to be installed across their fleets and become mainstream in most regions. When available, connectivity was used by roughly a quarter (24%) of passengers on their last flight. Furthermore, their satisfaction with this service exceeded most other inflight services: 88% of users were very or extremely satisfied, compared with 86% who say the same for entertainment, 81% for infotainment, 82% for food choice and 85% for drinks.

### HOW PASSENGER PREFER TO GET ONBOARD SERVICES

% of passengers in 2017



Onboard connectivity is also addressing passengers' desire for a more personalized experience. So far, airlines have mostly been empowering their crews with smartphones or tablets to deliver personalized information and services to passengers. A few airlines have also enabled their passengers to customize their onward journey by offering destination services such as booking a taxi or hotel.

**90%**  
ARE EXTREMELY OR VERY SATISFIED WITH DIGITAL DESTINATION SERVICES



While these services are not widely adopted, they command the highest satisfaction level (90% of users are very or extremely satisfied), which suggests this is an opportunity for airlines and their partners to expand these offers. However, uptake may also be dependent on convincing passengers that they are being offered a competitive price for these destination services.

# APPENDIX

## SURVEY METHODOLOGY

Fieldwork for the 12th edition of the Passenger IT Trends Survey was conducted globally in Q2 2017. The key findings are based on an online survey of 7,031 respondents from 17 countries across the Americas, Asia, Europe, Middle East and Africa.

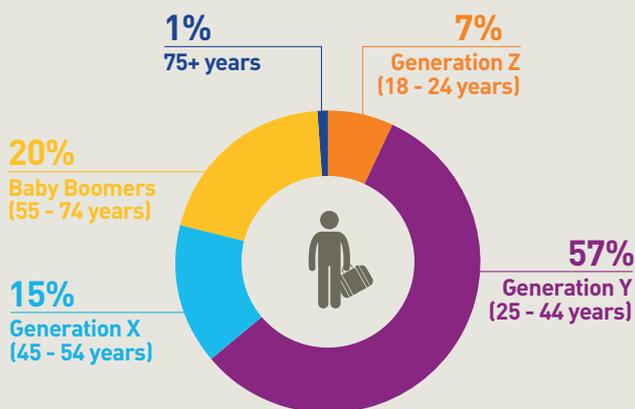
The number of respondents by country is relative to the amount of passenger traffic for each country, based on data from Airports Council International (ACI). Collectively, the respondents represent over three-quarters of global passenger traffic.

Respondents were selected on the following criteria:

- Passengers must have travelled at least once in the previous three months
- Passengers must have travelled through a large or regional airport in the country surveyed.

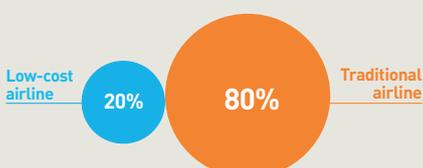
## SPLIT BY AGE GROUP

% of passengers in 2017



## SPLIT BY AIRLINE TYPE

% of passengers in 2017



## PASSENGER PROFILES

### One size does not fit all

Different types of passengers have their own travel style and mind-set. Passenger personas, demonstrate how the different traveler profiles approach their journey, customizing a 'pick and mix' of the consumer technologies and traditional channels available to them.



**36%**  
**CAREFUL PLANNER**

Plans ahead to avoid any negative experiences on their journey. These passengers often double check every stage of journey preparation and travel.



**13%**  
**HYPER CONNECTED**

Places a high value on efficiency. It is very important for them to maintain control and determine their own context.



**12%**  
**PAMPERED**

Relaxed and able to afford a higher standard of service. These travelers make frequent use of status-based services such as lounges and loyalty programs.



**8%**  
**OPEN-MINDED ADVENTURER**

Eager to try new things. They are looking for memorable experiences and bargains, so they tend to travel economy.

Visit [travelerprofile.sita.aero](https://travelerprofile.sita.aero) to find out what kind of traveler you are.





## SITA AT A GLANCE

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- We are the innovators of the industry. Our experts and developers keep it fuelled with a constant stream of ground-breaking products and solutions. We are the ones who see the potential in the latest technology and put it to work.
- Our customers include airlines, airports, GDSs and governments. We work with about 400 air transport industry members and 2,800 customers in over 200 countries and territories.
- We are open, energetic and committed. We work in collaboration with our partners and customers to ensure we are always delivering the most effective, most efficient solutions.
- We own and operate the world's most extensive communications network. It's the vital asset that keeps the global air transport industry connected.
- We are 100% owned by the air transport industry – a unique status that enables us to understand and respond to its needs better than anyone.
- Our annual IT surveys for airlines, airports and passenger self-service are industry-renowned and the only ones of their kind.
- In 2016, we had consolidated revenues of US\$1.5 billion.

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