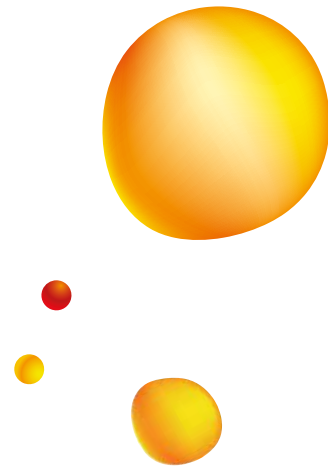# 2015

AIR TRANSPORT INDUSTRY INSIGHTS

THE FUTURE IS PERSONAL

A 360 DEGREE REPORT

SITA

Create success. Together

# INTRODUCTION

MOBILE EVERYWHERE – THE WORLD CONNECTED

The world is becoming increasingly connected: consumers everywhere have an avid appetite for mobile devices to keep in touch and access information, whatever they are doing, wherever they go. This passion for mobile technology is particularly acute among air travelers; 97% of whom are carrying their own device, and a small, but not insignificant, number carry multiple devices, according to the 2014 Passenger IT Trends Survey.[1]

Smartphones are the essential tool to help passengers navigate through the traditional pinch points on their journey and have a better experience, with 81% carrying them today, compared to just over a quarter in 2010.[2]

The ubiquity of mobile technology has already spurred airlines and airports to invest in mobile products to help air travelers on their journey and, as these begin to mature, new opportunities will open up to enable the air transport industry to deliver a more personal service.
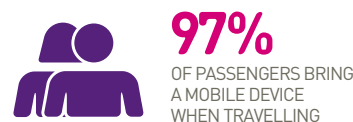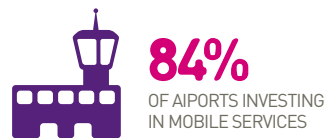
In response to the rapid adoption of smartphones over the past four years, the Airline IT Trends Survey reveals that airlines have made significant investments in mobile services. Approaching two thirds or so now enable passengers to buy tickets, check-in and access flight information via smartphone apps.[3] Their airport counterparts have been slower off the mark, but are starting to make headway, according to the 2014 Airport IT Trends Survey, with half providing flight information via apps.[4]

Device-laden passengers

81% 43%

43% 18%
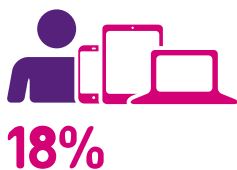
Percentage of passengers carrying a device

Strong mobile investment from all stakeholders

100%
OF AIRLINES INVESTING
IN MOBILE SERVICES

84%
OF AIPORTS INVESTING
IN MOBILE SERVICES

97%
OF PASSENGERS BRING
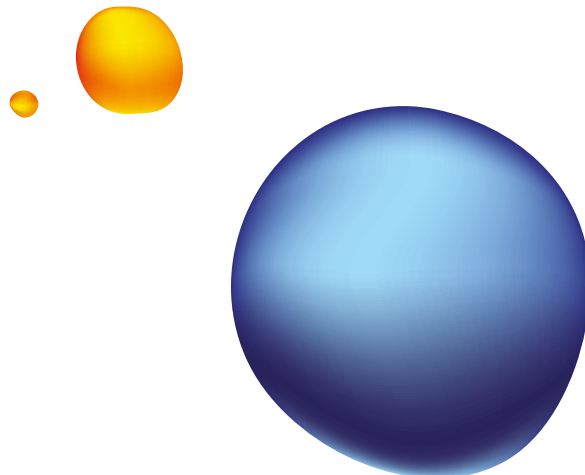A MOBILE DEVICE
WHEN TRAVELLING

The next three years will see all airlines and the vast majority of airports further investing in mobile services.[5] However, service roll-out and user adoption is, perhaps inevitably, proving rather complex. Today, about half of all passengers are keen to use mobile services that will support them at the pinch points of their journey through the airport, whether that is finding their way around, accessing lounges or the aircraft, providing identification at checkpoints, or making payments.[6]

Airlines are ahead of this demand in terms of their plans for mobile check-in and boarding passes via apps, yet passengers have yet to wholeheartedly embrace the service. In fact about a quarter have yet to use smartphone apps on their journey.[7] Similarly, while almost three quarters of global airports recognize that apps providing airport maps and directions are a key requirement for their passengers, implementations have been sluggish, albeit airports are planning to pick up the pace pretty rapidly over the next three years.[8] In fact, both airlines and airports will continue to grow their existing mobile offers, with flight status, purchasing services and retail offers all moving comfortably mainstream by the end of 2017.[9]

Looking ahead, the opportunity and the new frontier for mobile passenger services will be using apps to improve customer relationships and enabling passengers to personalize the services they use to suit their needs on their journey.

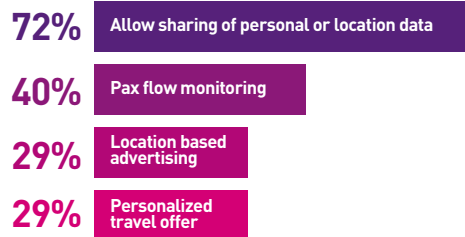# CONTENTS

A NEW ERA OF CONTINUOUS ENGAGEMENT?

The ability to be connected via mobile at every stage of the journey creates an opportunity for airlines and airports to enable continuous engagement with their passengers, from the moment they start to think about booking a flight, through to arriving at the airport and boarding the aircraft, and then reaching their destination. At each stage in this journey there is scope to offer a personalized and more relevant service to their customers.

MY JOURNEY, MY SERVICES

Technology combined with control through self-service is already helping to reduce frustration and improve passengers' experiences as they travel. Passengers themselves have a clear sense about where technology can be used to improve the travel experience. At the top of their wish list is an improvement to air fare comparison, with 54% globally saying this should be a priority investment. Just over half say that real-time flight information and in-flight wireless services are priorities for technology investment.[10]

To enjoy better and more relevant services people will have to share information about themselves, but are passengers ready to provide the necessary data and relinquish some of their privacy to attain these benefits? Broadly speaking, the vast majority (72%) are willing to share their location or personal data with travel providers. However, drilling down, passengers are less keen about sharing personal information when they do not have clear sight of the benefit, or if they think it will result in intrusive commercial services. Only 29% of passengers are comfortable sharing private data for commercial purposes, compared to 40% of passengers who are happy to do so when it is used to improve travel processes, for example, for passenger flow monitoring.

Passengers happy to share data in principle

72%	Allow sharing of personal or location data
40%	Pax flow monitoring
29%	Location based advertising
29%	Personalized travel offer

% of passengers willing to share location or personal data

RISING TO THE CHALLENGE – TAILORING THE EXPERIENCE ON THE GROUND

For airlines and airports the coming three years will be all about laying the groundwork for personalization that addresses these passenger needs. Alongside a further expansion of flight status updates via mobile apps by both sectors, airlines will be improving fare offers and tailoring services based on real-time passenger data.

Nearly three quarters of airlines have plans for customer relationship handling via smartphone apps by the end of 2017. Truly personalized service experiences via smartphone apps based on real-time passenger data, such as trip status (delay/cancellation), customer value, inventory, purchase history etc, are just getting off the ground, but 65% of airlines plan to have this capability over the next three years.[11]

Airlines invest in personalization enablers

Customer relationship app

19%	73%

Personalize trip via app options

12%	64%

■ TODAY   ■ BY 2017

% of airlines implemented and planning personalization services

TAILORING THE EXPERIENCE ON THE GROUND – AIRLINES

Among the early adopters who rolled out upgrades to their smartphone apps in 2014, European low-cost carrier easyJet enhanced its app with intelligent push notifications that allow the airline to send targeted real-time travel updates and to promote relevant ancillary offers at the right moment in their journey. After using the push engine to promote its winter schedules, easyJet reported an immediate increase in mobile customer engagement and mobile revenues, with increased flight bookings and app interaction.

"The use of push notifications will transform the way we communicate with our passengers," said **Peter Duffy, easyJet Commercial Director, Customer, Product and Marketing,** adding, "We'll be providing them with targeted messages and helpful reminders at various stages in their easyJet journey to make things easier for them when they are on the move."

Australian full-service operator Qantas upgraded its iPhone app with a personalized interface to streamline the day of travel experience for its customers. The features include:

- Recommending the best method of check-in (mobile, online or airport)

- Flight and boarding time alerts

- Letting customers know what time they will need to leave for the airport using their current location

- Locating the best route to get to the airport, pulling data from Google Maps

- Reminding passengers which lounges they can access and showing where to find them in the airport terminal

- Up-to-the minute flight status information, gate information and details of the carousel where their luggage will be waiting.

The app creates a "personalized travel timeline" according to **Qantas Domestic Chief Executive Officer Lyell Strambi**. "As a full service travel companion, the app anticipates all your travel needs – putting timely and relevant information in your hand when you need it. This lets our customers focus on the meeting they are flying to or the holiday reading they bought for their trip."

Last year also saw Swiss International Air Lines unveil an iPad app providing personalized travel information, including current flight status, relevant baggage and immigration provision, details of the food and beverages onboard and weather at their destination. The SWISS Logbook, which can be accessed online and offline, also includes a travel booklet with destination information such as suggestions of restaurants, bars, clubs, hotels, places of interest, culture and insider tips from SWISS crew members and employees.

The Logbook will also be rolled out to the iPhone in 2015 and SWISS is planning further initiatives to personalize the online experience. "Personalization is an important part to offer a better online experience and it's still gaining more awareness. These times it's a major differentiator in the airline business and we will continuously shift our offers in this direction," said **Stéphanie Joly, Senior Manager, Head of Online Experience, SWISS.**

However, she acknowledged that for personalization to be really effective, airlines cannot work in isolation. "A holistic view of the customer journey needs to be considered," she said. "It's essential for an integrated online experience, which requires a common understanding and interdisciplinary cooperation."

TAILORING THE EXPERIENCE ON THE GROUND – AIRPORTS

For airports, the big push into personalization will focus on better customer relationships and keeping travelers updated about the situation at the airport. At least 70% or more expect to be offering customer relationship handling and updates on wait times at security and local traffic issues by the end of 2017. Investment in personalized information services, such as opt-in and loyalty programs to passengers, will be slower to take hold, but over two thirds expect to have this in place in the three-year time frame.[12]

Among those airports working on providing timely information to their passengers in 2014, Dubai Airports designed its mobile app to reflect passengers' journeys through the airport with the aim of providing "bespoke information for passengers' individual journeys". By entering their flight number, passengers access customized detail to ease their travel and enhance their airport experience. They can also elect to receive updates on their flights, including gate changes or boarding times, helping them better plan the time spent in the airport. Additional features are expected to be added in the coming months, including making it possible for passengers to receive timely information and commercial offers relevant to their journey and location in the airport.

Some airports are now linking their apps to wireless proximity detection technologies such as Bluetooth beacons in key locations around the terminal to enable better interactive information for passengers on the move. Among them, San Francisco International Airport last summer unveiled a prototype smartphone app to guide visually-impaired travelers. The app works with some 500 beacons to call out points of interest and users can customize the content they want delivered: shops, restaurants, power outlets, etc.

In the autumn, Miami International Airport became the first airport in the world to have completed open deployment of its beacons, making them available to all stakeholders via the SITA Common-Use Beacon Registry. The beacons can be used by airlines', retailers' and other partners' apps to trigger useful content to passengers or staff. "With our beacons, they can now give passengers relevant information on their phones at every point of their journey through our airport," said **Maurice Jenkins, Director Information Systems and Telecommunications, Miami International Airport.**

CORK AIRPORT, IRELAND: POWER TO PLAN FOR PASSENGERS

Investment in personalization via its mobile app is a growing element of Cork Airport's commitment to customer service. The app initially featured live arrivals and departures information, car park booking, live weather (at Cork and all the destinations served by the airport), details of all of the retail and catering outlets within the terminal, links to airport shopping services, plus all the latest retail offers. Subsequent enhancements in 2014 have included live bus and coach departure timetables, push notifications and, in January 2015, adding live flight tracking. This latest feature allows users to click on a flight number and track live updates of exactly where the plane is at that moment in time. Users can see where the plane is en-route to Cork, once it has departed the origin airport, making it easier for passengers to plan their journey to and from the airport.

"Cork Airport has worked extensively with the National Transport Authority (NTA) to integrate a live bus timetable from the airport, "said Kevin Cullinane, Head of Communications. "The NTA application program interface currently displays times from Bus Eireann, Cork Bus and Citylink on the Cork Airport App. There are plans to expand this to service all the major bus operators and to integrate real-time journey times from Cork Airport using public transport. There are no plans to integrate taxi services like Uber or Hailo just yet, however passengers can book their car park space through the app and get the cheapest prices and park closest to the airport."

The app, which by January 2015 had been downloaded close to 10,000 times since its launch, has contributed to Cork's high approval rating among its users. "Cork Airport continues to record an outstanding 85% satisfaction rating according to independent research. The survey of our departing passengers, which is carried out by independent market researchers on an ongoing basis, recorded particularly high satisfaction levels in the areas of airport security and check-in, shopping... and the overall ease of navigation from check-in to departure," said Cullinane.

Frankfurt Airport's updated app is also an initiative from its quality service program to enhance services that improve the travel experience of passengers who are departing and transferring at Germany's largest airport. Functionality was developed via detailed market research to determine the best way to meet specific customer requirements. Before their trip, the app helps passengers prepare with useful tips such as how to get to the airport, parking recommendations, and orientation. At the airport, the app acts as a personal guide to the passenger terminals. Users can customize the start page to their individual requirements and can receive real-time information automatically via push notification about any changes regarding their flight or gate, as well as special offers in the shops and restaurants. Further information can be added to the start page, such as parking possibilities, personal shopping lists, or particular restaurants, with a navigation feature guiding every passenger to his or her desired destination at the airport.

Other features include a tax refund calculator for international passengers that calculates the refund during the shopping experience; for Chinese passengers there is an overview of popular luxury brands available at the airport; for Americans, information on fine German wines; and for German passengers taking a long-distance journey to warmer climates, the app provides information about the winter coat service.

"Frankfurt Airport is one of the largest and most important hubs worldwide. Therefore, it is our goal to offer an app that meets the individual needs of passengers and offers them the best service possible", said **Nicole Ebner, Senior Executive Manager Business Development, Retail and Properties at operator Fraport.**

However, the development of continuous engagement on the ground is only one half of the personalization story. A growing number of airlines are installing wireless systems and offering onboard passenger connectivity services. With in excess of 12,900 commercial aircraft expected to provide in-flight connectivity to passengers by 2023, according to EuroConsult, the opportunity to offer a bespoke experience in the air will be significant.[13]

Airports invest in personalization enablers

Customer relationship app

26% | 78%

Airport status updates

18% | 73%

Personalized info services

12% | 65%

■ TODAY   ■ BY 2017

% of airports implemented and planning personalization services

MY DEVICE, MY IN-FLIGHT SERVICE

When they are sitting in their airline seat, today's connected passengers are keen to continue their lives just as if they were relaxing at home or working in the office. Around half of global passengers say they would definitely use their own smartphone, tablet or laptop for in-flight entertainment (IFE), sending and receiving emails and text messages and to buy refreshments or browse a virtual duty free shop.[14]

When it comes to entertainment onboard, 63% of passengers express a clear preference to use their own devices (compared to 55% who would definitely use an airline device for entertainment). The majority would use live flight information and stay in touch via email/text communications. However, the bulk of passengers are not comfortable with making phone calls in flight.[15]

Despite a lower level of interest in making purchases in-flight, almost half of global passengers say they would use some time during the flight to plan their trip and buy destination services.[16]

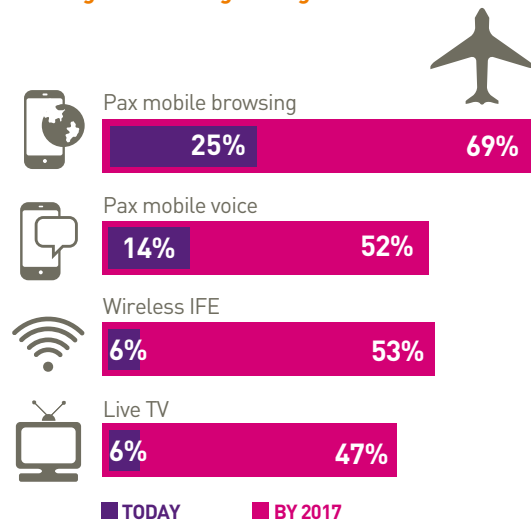## RISING TO THE CHALLENGE – TAILORING THE EXPERIENCE IN-FLIGHT

A rapid escalation in airlines offering in-flight connectivity services is expected over the coming three years. Today most of these facilities are a minority provision, offered by a third or less of all airlines. However, by the end of 2017, the majority of them are set to roll out onboard connectivity, internet access/Wi-Fi via passengers' own mobile devices, voice, text and data services via passengers' mobile devices, and wireless IFE.[17]

The front runners exploring the opportunities for personalization in-flight include Spanish full-service carrier Iberia, which launched in-flight connectivity on its transatlantic routes last summer, allowing passengers to use both Wi-Fi and GSM services to chat, tweet and send text messages from their mobile phones or tablets. It has also launched an Iberia OnBoard app that allows travelers to preview the IFE selection available to them on their upcoming flight and plan the experience in advance.

In the USA, Alaska Airlines has launched "Alaska Beyond Entertainment", a service that allows its passengers to catch up on their favorite television shows and watch recently released movies on their own Wi-Fi-enabled smartphones, tablets or laptops, with the aim of extending the service to almost all its fleet by April 2015. Meanwhile in Asia, SilkAir, the regional wing of Singapore Airlines, is offering a wireless service to allow passengers to enjoy movies, short features and music on their personal mobile devices and have a more customized IFE experience.

US carrier JetBlue is providing at-home internet speeds via Fly-Fi, its next-generation in-flight Wi-Fi service and in autumn 2014 launched the Fly-Fi Hub, the gateway to a wide range of entertainment offerings from TV shows to learning courses and magazines on passengers' own portable devices. In addition, by April 2015 every in-flight crew member will have an iPad mini for point-of-sale and document management onboard. The connected crew will be able to know more about their customers onboard and have a better sense of real-time issues on the ground that may impact their travel experience.

In-flight service: growing choice

Pax mobile browsing — 25% (TODAY), 69% (BY 2017)
Pax mobile voice — 14% (TODAY), 52% (BY 2017)
Wireless IFE — 6% (TODAY), 53% (BY 2017)
Live TV — 6% (TODAY), 47% (BY 2017)

■ TODAY   ■ BY 2017

% of airlines offering in-flight services

JetBlue Executive Vice President and Chief Information Officer Eash Sundaram is already considering the next concepts for improving personalization. "One of the biggest changes that's going to happen is personalization in flight," he said. "We're looking at profiling people's moods on a real-time basis using social media input. For example, we could understand from customers' social media profiles whether they're happy, or maybe going to a wedding, or a graduation. Think of a plane full of people with certain categories of profile: we can deliver content that's specific to them, right to their seats.

He continued: "I don't think the concept of personalization is a message saying 'Welcome on board'. It's about how you address specific needs – such as if a customer has connecting flights or has had any previous problems flying with us. You can connect the cabin with customer support behind the scenes in real-time, so you're not only solving problems but also giving comfort to the customer that you're watching out for their travel now and in the future."
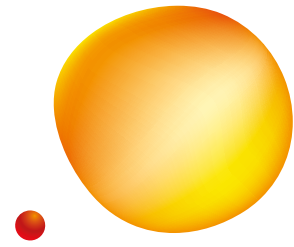
PHILIPPINE AIRLINES: CONNECTIVITY ENABLING CHOICE

Asia's Philippine Airlines (PAL) became the first airline to fly with wireless IFE, mobile and Wi-Fi connectivity after installing SITA OnAir's Mobile OnAir, Internet OnAir and OnAir Play services on all of its long-range aircraft last year. This connectivity combination has enabled some sophisticated customization choices for its passengers and is keeping pace with on-the-ground trends in the way people consume entertainment content.

Combining multimedia in-flight entertainment with the internet enables passengers to stream or download on-demand content of their choice to their own personal electronic devices, just like they would at home, using TV channels' on-demand apps. Wireless onboard entertainment can also be personalized to local tastes, for example, PAL provides publications from the Philippines alongside international magazines. The system has the capacity to push time-sensitive or refreshed content to aircraft during the flight, such as live sports and news updates. SITA OnAir is now working on several ongoing initiatives such as sports micro-sites with scores that update throughout the flight and route-sensitive news clips that refresh during the flight.

The result is that the number of devices passengers carry is increasing, the expectation of ubiquitous connectivity is rising and the desire for autonomy over content consumption is growing. François Rodriguez, Chief Strategy & Marketing Officer, SITA OnAir added that a breakdown of usage shows that 65% of PAL's passengers use the service to watch movies and TV, 25% listen to music, and 10 percent read magazines. He observed: "PAL is satisfying the latest generation of passengers, including the 'screenagers' who have grown up living and breathing connectivity. They expect to be able to connect across two or three screens everywhere they go."

He added: "Generally, passengers find the user interface on their personal devices much more appealing than the traditional IFE. Accessing content is more straightforward, as they are familiar with the device they're using. One reviewer told us, 'the thing I like about the 'iN AiR' service is the ease of seeing and choosing your titles. Whereas with IFE you had to scroll through all the channels, now you see all your options in one screen and just tap'."

PAL is also harnessing the new connectivity landscape to personalize promotions. A 2014 social media campaign to passengers flying to the Middle East, the USA, Canada, and UK on aircraft equipped with the airline's iNAiR Wi-Fi service encouraged them to take a "selfie" image next to the PAL iNAiR banner in Terminal Two at Manila Airport. Passengers then posted their images on Facebook and Twitter, using the promotion tag/hashtag, and when their pictures received 10 likes, they could show it to a member of PAL staff to claim a complimentary Wi-Fi session. "This is a great example of how airlines can personalize promotional campaigns and, ultimately, give passengers what they want. PAL identified that its passengers were part of the selfie phenomenon and used it to engage them." said Rodriguez.

Connectivity on the aircraft has allowed PAL to personalize other aspects of the flight experience. It has provided crew with SITA OnAir CrewTablets, which display up-to-date information about passengers on a seat map. This information, which may include flight history, payment history (with logged payment details), food preferences etc, is enabling them to offer customers a more bespoke service.

However, looking beyond the cabin and in-flight services, there is a new horizon for more interactive and responsive engagement during one of the most stressful situations that may arise on a journey: when flights are disrupted by delays and cancellations. Passengers are already expressing their desire for airlines and airports to be more proactive during disruptions, while the industry, in turn, has ambitions for more relevant solutions.

GETTING BACK ON TRACK WHEN FLIGHTS ARE DISRUPTED

Passengers are looking to airlines and airports to be more proactive when their flights are cancelled or delayed. To date, the air transport community has been focused on communicating disruption information, but the next three years will see them developing tools and services to provide passengers with more responsive solutions.

MY TRIP, MY ALERTS

Smartphones and other personal communication technologies are opening the door to providing travel disruption management services to passengers. These solutions cannot come a moment too soon as passengers already have a strong expectation that airlines and airports should provide them with personalized alerts and rearrangements when flights are delayed or cancelled.

On the communications side, over half of global passengers definitely expect a smartphone app notification or a call to their mobile phone. Thanks to the ability to receive emails on their smartphones, half of them definitely expect to receive disruption notifications via email. Social media is less of a priority for urgent messages, with just 29% of passengers saying they would definitely expect alerts via this channel.[18]
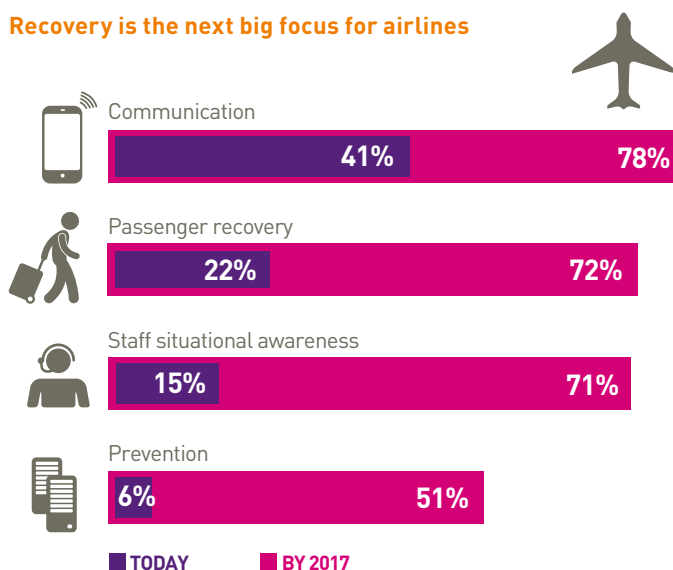
To get their journeys back on track, 57% of passengers definitely expect personalized rearrangement options and 55% want automatic rebooking on the next flight. Self-service rebooking options via kiosks or mobile are also expected by a significant group of travelers.[19]

DEVELOPING A NEW WAVE OF DISRUPTION MANAGEMENT TOOLS

There is a groundswell of activity underway and planned to invest in smart technologies to better manage flight disruptions and to give passengers more choice via self-service rebooking solutions. The industry will continue to consolidate its implementation of communications tools in the immediate future and by the end of 2017, the vast majority of airlines will be providing real-time notifications to passengers' mobiles and sending alerts via social media. They have been slower off the mark to involve service stakeholders in the communications loop, but around a third of airlines are now sharing disruption information via email and phone and this is expected to approach two thirds over the next three years.[20]

In this period airlines will turn their attention to giving passengers rebooking tools and better enabling their staff with mobile devices to access operational information about the disruption. Broadly 70% of airlines are planning to offer automatic rebooking for all passengers, different rebooking services for high-value customers and passenger self-service tools to rearrange their travel.[21]

Recovery is the next big focus for airlines

	TODAY	BY 2017
Communication	41%	78%
Passenger recovery	22%	72%
Staff situational awareness	15%	71%
Prevention	6%	51%

% of airlines offering services today and by 2017

EMIRATES: EMPOWERING STAFF TO REDUCE THE IMPACT OF DISRUPTION

Today around a fifth of airlines have armed their staff with mobile devices to access disruption tools and recovery information, but 82% expect to be providing this mobile access in three years' time.[22] Emirates is one of those at the forefront of this initiative with a custom-designed app launched in November 2014. Journey Manager, which runs on a Samsung Note 4 device, allows Emirates managers and supervisors to have better operational awareness wherever they are in the airport. They can check the flight status of inbound and outbound flights, which helps them assess potential areas of concern, particularly in the event of a disruption.

Emirates airport staff are using Journey Manager in the transit areas. Up to 20,000 passengers use the transfer desks during peak times in a six-hour period, with 40% of them queuing to get information about which gates their next flights will be departing from. By scanning passengers' boarding passes with the device, staff can provide travelers with the most up-to-date information, significantly reducing the need to queue.

Transfer staff also use the app to check on a delayed flight or if passengers have short connection times so that they can alert the gate supervisor at the connecting flight. If a passenger has missed their connection, a scan of their boarding pass allows staff to view what rebooking has been made and direct them accordingly.

"The size and scale of our operations at the airport can be a challenge, especially during peak times where we can see up to 140 departures and arrivals in a four hour window. That is why we have always looked at ways to use technology and automation to improve the customer journey as well as empower our staff whose jobs means they are constantly on the move across the airport terminal," said Mohammed H Mattar, Emirates' Divisional Senior Vice President, Airport Services. "Before Journey Manager, most of these functions were done through transactions behind a desktop, and information retrieved from printed reports, which only capture status updates at the time that they were printed. With the ability to quickly scan a passenger's boarding pass and access 'live' flight information, our staff are able to find on-time solutions and make decisions with more confidence, knowing they have the most up-to-date information right at their fingertips."

Both smartphone apps and kiosks will be critical interfaces for airlines to engage with passengers during disruptions. These are provided by a small minority of airlines today, but by the end of 2017, over 70% expect to have smartphone apps offering self-service rebooking tools and over 60% are planning to implement kiosks functionalities.[23]

Airports have similar ambitions to airlines, albeit today's implementation levels are behind those achieved by airlines. Airports have been concentrating their efforts on providing mobile tools to improve the situation awareness of their staff: nearly a quarter have already made this investment, but this is expected to approach two thirds in three years' time. By this stage, two thirds will also be providing passengers with real-time alerts and over half plan to have implemented self-service tools via kiosks and mobile for passengers to implement their journey recovery solutions.[24]
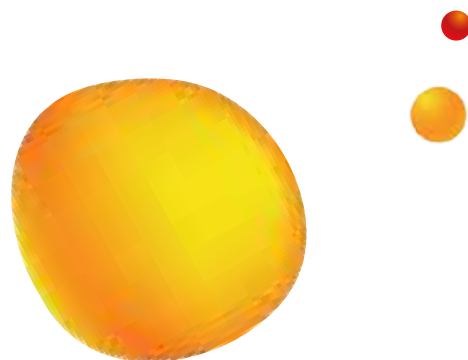
IATA: INFORMATION AND AUTOMATION ARE VITAL

Giving passengers the chance to be proactively re-booked and to obtain new booking options, or boarding tokens, via a self-service channel when disruptions occur is a key deliverable of the International Air Transport Industry Association's Fast Travel Program. Its goal is that 80% of global passengers will be offered a complete self-service suite throughout their journey, include flight rebooking, by 2020.

Hugh Best, Project Manager, Fast Travel Program, explained that the first step has been to ensure airlines have their customers' contact details. "You need the contact details first so you can reach the passenger via SMS/ email to tell them of disruptions and rebookings. When the passenger books via the airline directly it is easy, but via a travel agent it can be difficult as you often have only the contact details of the travel agent in your system. The Customer Contact Details initiative focuses on this issue by interacting with the travel agent associations in order to get proper contact information put into reservations." Next will be the promotion of proactive flight rebooking and

notifications in order to get this deployed by as many airlines as possible and upgrades to several reservation systems are enabling more rebooking options.

Best is confident that Fast Travel will meet its rebooking target as there are few infrastructure challenges, rather it is matter of network solutions that are dependent on investment priorities and IT reliance (i.e. an older IT system cannot just be changed, but often requires a few years to be phased out). "Sending an email or SMS is a solution that does not require potential infrastructure such as baggage printers or boarding gates. It can be solved by software and the availability of smartphones/tablets, the usage of which is growing exponentially."

The ultimate goal is to eliminate much of the stress that passengers experience currently when they have to queue at a ticket counter to be rebooked after their flight is cancelled/delayed. "With more automated options, flight rebooking can occur for almost all passengers instantly, or let passengers rebook themselves. This avoids queues and helps the passenger immediately. Then additionally the staff at the transfer desks are available to offer additional personalized service to those passengers who want it," said Best.

To help passengers cope with disruptions caused by severe winter weather, Toronto Pearson International, has launched a mobile app that provides alerts about operational disruptions at Canada's largest airport and enhanced Wi-Fi and cellular capacity in its terminal buildings. "Based on feedback from passengers, the many employees who work at the airport, and industry experts, Toronto Pearson has made changes to how it handles winter weather, including how it communicates with passengers," said **Vijay Kanwar, Greater Toronto Airports Authority Board Chair**. "Our guests deserve the highest standards of communication and customer service."

Disruption management: Big focus for airports

Communication
23%   55%

Passenger recovery
17%   52%

Staff situational awareness
23%   61%

**Prevention**
7%   45%

■ TODAY   ■ BY 2017

% of airports offering services today and by 2017

FINAL THOUGHTS

We are on the threshold of a new era of continuous engagement between airlines, airports and passengers at every stage in the journey. Consumer passion for mobile technology offers a real opportunity for the aviation community to create a step-change in passenger service by using mobile apps to improve their customer relationships and by giving passengers the ability to personalize travel services to the needs of their journey.

While there is a clear appetite among passengers for more customized services, they remain cautious about divulging personal information, particularly if it is for purely commercial purposes. For their part, over the next three years airlines and airports will be ramping up investments in exactly those services passengers are demanding, such as better fare comparisons, real-time flight information and in-flight wireless services. These are all initiatives that will lay the foundations for more bespoke experiences on the ground and in the air.

However, the greatest potential to improve the passenger experience through personalization will be by enabling responsive engagement at the potentially most stressful point in any journey: if flights are delayed or cancelled. Passengers want airlines and airports to be more proactive. And in this regard, both airlines and airports have strong aspirations within the aviation community to move beyond their current focus on communication to providing self-service recovery tools and better staff situational awareness.
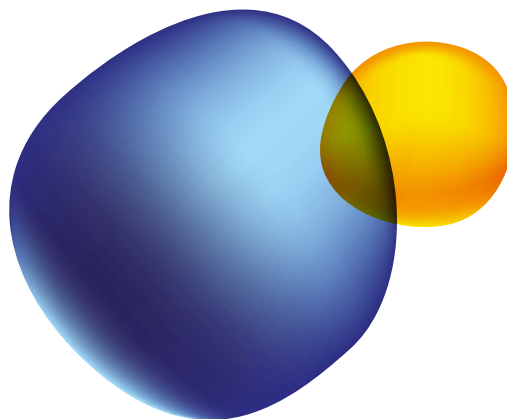
NOTES AND REFERENCES

Note 1
Page 2

Passenger IT Trends Survey 2014: 97% of global passengers travel with their own mobile devices; 81% carry smartphones, 43% carry laptops, 43% carry tablets and 18% carry all three devices.

Note 2
Page 2

Passenger IT: 28% of passengers were carrying smartphones in 2010, rising to 76% in 2013 and increasing further to 81% in 2014.

Note 3
Page 2

Airline IT Trends Survey, 2010 and 2014: 66% of airlines have enabled check-in via smartphone apps, up from 28% in 2010; 68% sell tickets via apps, up from 18% in 2010; and 62% provide flight information, up from 45% in 2010.

Note 4
Page 2

Airport IT Trends Survey 2014: 50% of airports provide flight status information via smartphone apps, unchanged from 2013.

Note 5
Page 2

Airline IT 2014: 100% of airlines plan to invest in passenger services via mobile devices over the next three years; 74% will be funding major programs and 26% will be supporting pilot projects. Airport IT: 84% plan to invest in applications for passenger mobile services; 43% will be major programs and 41% will be pilots.

Note 6
Page 2

Passenger IT: 57% of passengers say they would definitely use mobile service for airport maps and directions in the future; 50% would definitely use their smartphones for access, for example to lounges or for aircraft boarding; 49% would use their mobile for identification; and 48% would definitely use their smartphone to make payments.

Note 7
Page 2

Airline IT: 66% have already implemented check-in via mobile apps and 53% have implemented mobile boarding passes, with implementations set to rise to 94% and 91% respectively by the end of 2017. However, just 4.6% of passengers are checking in via mobile app/mobile web today and airlines predict this will rise to 15% in the next three years. Passenger IT: 24% of global passengers have yet to use a smartphone app for any travel related activities.

Note 8
Page 2

Airport IT: 24% of airports currently provide navigation/way-finding within the airport via smartphone apps, and another 48% have plans to do so by the end of 2017.

Note 9
Page 2

Airline and Airport IT: by the end of 2017, 96% of airlines and 89% of airports will provide flight status updates via mobile apps; 93% of airlines and 65% of airports will enable retail promotions and offers; and 92% of airlines and 62% of airports will enable passengers to purchase their services via apps.

Note 10
Page 4

Passenger IT: 54% of passengers say better comparability of air fares is the top priority for technology investment; 52% each say better real-time flight information and in-flight wireless services.

Note 11
Page 4

Airline IT: 19% of airlines offer customer relationship handling via a smartphone app and this is set to rise to 73% in the next three years; 13% of airlines currently offer a truly targeted/personalized service experiences based on real-time passenger data, rising to 65% . In addition, 12% allow passengers to personalize their trip by selecting from a choice of service options via smartphone apps and this is set to reach 64% by the end of 2017.

Note 12
Page 6

Airport IT: 26% of airports have already enabled customer relationship handling via apps, rising to 78% by the end of 2017; 18% of airports already offer passengers updates on airport status such as wait times and local traffic, but over the next three years, 73% of airports expect to be offering this service; 12% of airports currently offer personalized information services such as opt-in and loyalty programs to passengers, but this is set to increase to 65%.

Note 13
Page 7

Prospects for In-flight Entertainment and Connectivity, published by Euroconsult, 26 June 2014: the global in-flight connectivity market is expected to grow over the next 10 years, with over 12,900 commercial and 24,000 business aircraft providing in-flight connectivity to passengers by 2023.

Note 14
Page 7

Passenger IT: 56% of global passengers would definitely use their mobile device for in-flight entertainment such as movies, games or live TV; 54% would definitely use their connected device for emailing or texting; and 45% to purchase food and drinks or browse a virtual duty-free shop.

Note 15
Page 7

Passenger IT: 57% of passengers would definitely use live in-flight information, 55% would definitely use email/text, and 49% would make phone calls.

Note 16
Page 7

Passenger IT: 49% of passengers would definitely buy destination services; 47% would buy in-flight meals and drinks and 44% would use a virtual duty free store.

Note 17
Page 8

Airline IT: 73% of airlines are planning to offer onboard connectivity by the end of 2017, up from 34% today; 68% will be offering mobile browsing, up from 25% in 2014; 53% will be offering wireless in-flight entertainment, up from 6% in 2014; and 52% will be offering passenger mobile phone services (voice, text and data), up from the current 14%

Note 18
Page 10

Passenger IT: 53% of passengers each say they definitely expect to receive disruption notice via smartphone apps or a call to their mobile phone; 51% would definitely expect an email; but just 29% would definitely expect a social media alert.

Note 19
Page 10

Passenger IT: 57% of global passengers definitely expect personalized rearrangement options and 55% automatic booking on the next flight; 45% each would definitely expect self-service rebooking via kiosks or mobiles.

Note 20
Page 10

Airline IT: 53% of airlines have set up real-time information and notifications via passengers' mobiles and this is expected to rise to 93% in the next three years; 37% of airlines already provide mass communication about disruptions via social media and this is set to increase to 81%; 32% of airlines are sharing disruption information with service stakeholders via email and phone, growing to 61% by the end of 2017.

Note 21
Page 10

Airline IT: By the end of 2017, 72% of airlines are planning to offer automatic rebooking for all passengers (up from 22% in 2014), 67% expect to be offering different rebooking services for high-value customers (up from 25%) and 76% are planning to provide passenger self-service tools to rearrange their travel (up from 18%).

Note 22
Page 11

Airline IT: 21% of airlines currently provide their staff with mobile devices to access disruption tools and related information, but 82% are planning to provide mobile access over the next three years.

Note 23
Page 11

Airline IT: By the end of 2017, 72% of airlines expect to have smartphone apps offering self-service tools for rebooking after a disruption, up from 11% today; 63% are planning to implement kiosks functionalities, up from 14% today.

Note 24
Page 11

Airport IT: 23% of airports have enabled their staff with mobile devices to access disruption-related tools and information, but 62% are planning to have them in place by the end of 2017; 31% send real-time information and alerts to passengers' mobiles, increasing to 66% in the next three years; 17% offer passengers self-service tools to solve disruption problems, rising to 52%.

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For further information, please contact sita by telephone or e-mail:

Americas
+1 770 850 4500
info.amer@sita.aero

Asia Pacific
+65 6545 3711
info.apac@sita.aero

Europe
+41 22 747 6111
info.euro@sita.aero

Middle East, India & Africa
+961 1 637300
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