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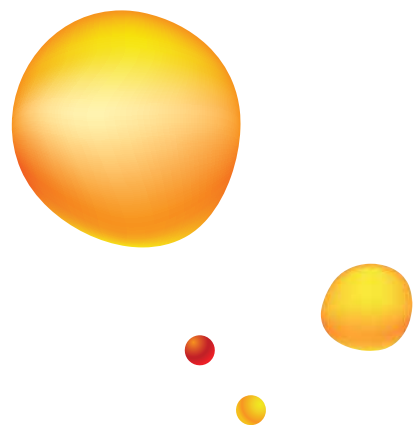
AIR TRANSPORT INDUSTRY INSIGHTS

SMART THINKING

WORKING TOWARDS BETTER BUSINESS INTELLIGENCE
FOR AIRLINES AND AIRPORTS

SITA INSIGHT

SITA

Create success. Together

INTRODUCTION

The aviation industry has a collective vision to make air travel a more personal and relevant experience for passengers in the near future. One that is fast and seamless, with no unpredictable processes, no uncertainty or stress.

This is the vision encapsulated by the International Air Transport Association's (IATA) Chief Executive Tony Tyler at its 2013 World Passenger Symposium: "A smooth and hassle-free journey where passengers do not have to break stride from the curb to the gate unless they choose to is the goal. That would deliver tremendous value to passengers and our vision is to work with our airport and technology partners to make it a reality by 2020."[1]

Initiatives are underway across the air transport community to help realize this vision. As well as IATA's latest incarnation of its Simplifying the Business program, the Airports Council International (ACI) has launched regional airport collaborative decision-making initiatives. More importantly, there is a recognition that greater industry collaboration is crucial to further improving the passenger journey. This is demonstrated by the recent agreement between ACI and IATA to jointly develop Smart Security, which aims to reduce the inconvenience of security checkpoints for passengers, while optimizing security screening resources and asset utilization. The initiative will also include implementing new procedures to facilitate risk-based screening and decision making.

The collective aspiration was summed up by Angela Gittens, Director General, ACI World: "Airports, airlines, control authorities and system suppliers all have a role to play in making the process more effective, efficient and pleasant for the passenger. Smart Security brings these stakeholders together with the shared goal of transforming the security checkpoint for the benefit of all the traveling public."

However, underpinning future improvements to the passenger journey, and best working practices between industry stakeholders, are two key areas of evolution. One is the ability of airlines and airports to make the fullest use of the latest intelligence inherent in their operational and passenger systems.

An example is improving the quality of the passenger's journey, while maximizing the value that they represent to the business. This requires ever-improving solutions to the collection and retrieval of data and making it available in a meaningful way. That is the battle.

The other area of evolution is the rise of intelligent airports. These airports will be the ones with the ability to track, manage and share in real-time key information about all of their assets. They will have the capacity to quickly make changes to airport processes to optimize the passenger journey.

CONTENTS

ACCESS TO DATA IS THE FOUNDATION FOR SEAMLESS TRAVEL

Passengers, airlines and airports share some common goals and aspirations for air travel. They all want improved services to support every aspect of the journey and, with the rapid growth of smartphone and tablets, they are all looking to mobile solutions for many of those improvements and innovations. The foundation for those service enhancements is relevant, timely information. The requirement for good quality data from within the organization and from linked stakeholders will be the key driver for transformation.
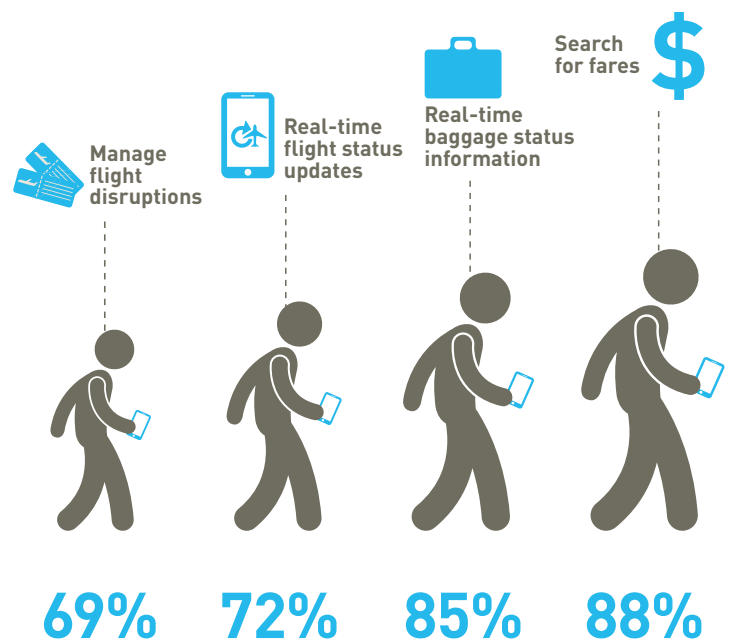
PASSENGERS WANT REAL-TIME INFORMATION

Today's passengers want their journey to be easier and they are turning to technology to assist them. For many, using websites and self-service kiosks is becoming second nature[2] and around three quarters of them are now carrying a smartphone when they travel[3]. Admittedly, mobile services have not taken off in all areas of the journey, but around half of passengers affirm that mobile flight status, mobile check-in and mobile boarding passes are definite improvements.[4] However, their top priority is real-time information to help them self-process their journey. Around half or more of passengers interviewed for SITA's 2013 *Passenger IT Trends Survey* say they would definitely use mobile services for flight status, baggage status and airports directions.

AIRLINES AND AIRPORT INVESTMENTS

For airports and airlines alike, the critical drivers for their investment decisions are improving the quality of the passenger experience, plus increasing their own productivity and efficiency.[5] To meet these goals they are offering better availability of information about the passenger journey. This means investing in smartphone apps for passengers and, just as importantly, in mobile services for their own staff.

Passengers want information on the move

Manage flight disruptions

Real-time flight status updates

Real-time baggage status information

Search for fares

69% **72%** **85%** **88%**

% of passengers who would use smartphones for travel

The next three years are likely to see a rapid escalation of airlines providing flight and bag status updates to passengers via smartphones. The 2013 *Airline IT Trends* and *Airport IT Trends Surveys* reveal that flight status updates are already a mainstream mobile service and this will extend to the vast majority of airlines and airports by the end of 2016. At which point, today's niche services will be established, with bag status updates offered by most airlines; and the majority of the airport community providing airport status notifications, such as queues through security and walking time to gate. They will also be providing navigation/way-finding at the airport via mobile apps.[6]

Dallas Fort Worth International airport and Berlin's two airports were among those launching push information about gate changes via smartphone apps in 2013. Both were geared to help travelers make best use of their time. The Dallas Fort Worth airport app includes a "within five minutes of my gate" feature letting users know about the shops and restaurants that are closest. The Berlin app detects when the user is near Berlin Schönefeld airport or Berlin Tegel airport and offers zoomable terminal maps as well as information on getting to and from the airport, details of shops, restaurants and services.

MOBILE SERVICES FOR OPERATIONS STAFF

The vast majority of airports are funding technology projects to provide staff services via either smartphones or tablets in the next three years.[7] Airlines have already made significant progress with electronic flight bags. By the end of 2016, the proportion of airlines expected to provide these, plus mobile-based services for cabin crew, ground operations, crew rostering/communications and aircraft maintenance/ engineering, will have passed the 70% mark.[8]

Increased mobilizing of staff offers opportunities for airlines and airports to improve the passenger experience and create greater efficiencies in the operation. Airlines have been trialing SITA's CrewTablet on iPads to enhance inflight services for passengers. CrewTablet can be fully integrated with the airline's operational systems and other business applications so crew are able to access weather reports, seat layouts, frequent flyer programs, flight connection information and safety manuals, with the touch or swipe of a screen.
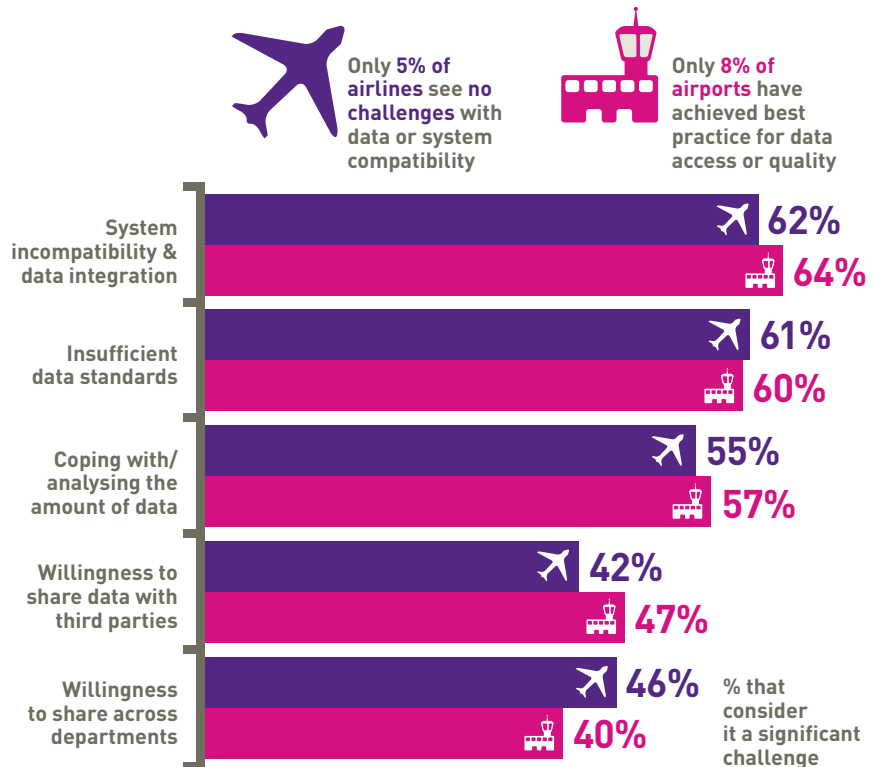
OVER 70%
OF AIRLINES WILL PROVIDE MOBILE SERVICES TO OPERATIONAL STAFF BY 2016

CHALLENGES ARE CONSTRAINING PROGRESS

LESS THAN 10%
OF AIRPORTS HAVE FULLY ACHIEVED DATA ACCESS AND QUALITY

Challenges are constraining progress

Only **5% of airlines** see **no challenges** with data or system compatibility

Only **8% of airports** have achieved best practice for data access or quality

Challenge	Airlines	Airports
System incompatibility & data integration	62%	64%
Insufficient data standards	61%	60%
Coping with/ analysing the amount of data	55%	57%
Willingness to share data with third parties	42%	47%
Willingness to share across departments	46%	40%

% that consider it a significant challenge

SHARING THE RIGHT DATA AT THE RIGHT TIME

Many of the smartphone apps and mobile services that airlines and airports are planning to supply to passengers and staff are heavily dependent on their ability to provide meaningful data. In other words, the right data at the right time. Furthermore, this data is likely to come from multiple sources. For example, almost two thirds of airlines are planning to report bag loading status in real-time to passengers' mobiles. But to provide this service they will also need real-time data access to all the partners involved in the bag loading processes, which may include ground handlers, the airport and even other airlines, if the bag and passenger are transferring onto another flight.

Behind the scenes, the ongoing efforts to establish data standards and ensure system compatibility continue to constrain the implementation of business intelligence initiatives for many airlines and airports. Seamless access to quality data is the engine of good business intelligence, but only 5% of airlines see no challenges with data and system compatibility and data standards.[9] Airports fare only a little better and in terms of data management best practice, less than 10% of airports have fully achieved data access and quality.[10]

Just as critical, the industry also has attitudinal hurdles to overcome. Although airlines recognize the need for collaboration, they have been slower than airports to share their data.[11] Meanwhile, data sharing with other stakeholders is a stumbling block to fully achieving business intelligence for almost half of airlines and airports.[12]

Airline and airport ambitions to improve services and operations are heavily dependent on the ability of the industry to share data freely; this is the challenge.

FULL BUSINESS INTELLIGENCE MATURITY WILL TAKE TIME

Business intelligence is top of the agenda for both airlines and airports[13]. However, while their aspirations are high, it will take time for the industry to fully achieve business intelligence maturity and establish best practice.

Using airlines' and airports' assessments of the headway they have made with the various elements of business intelligence, SITA has built a Business Intelligence Maturity Index to track the industry's progress across the four key areas that comprise a fully accomplished and sustainable business intelligence solution.
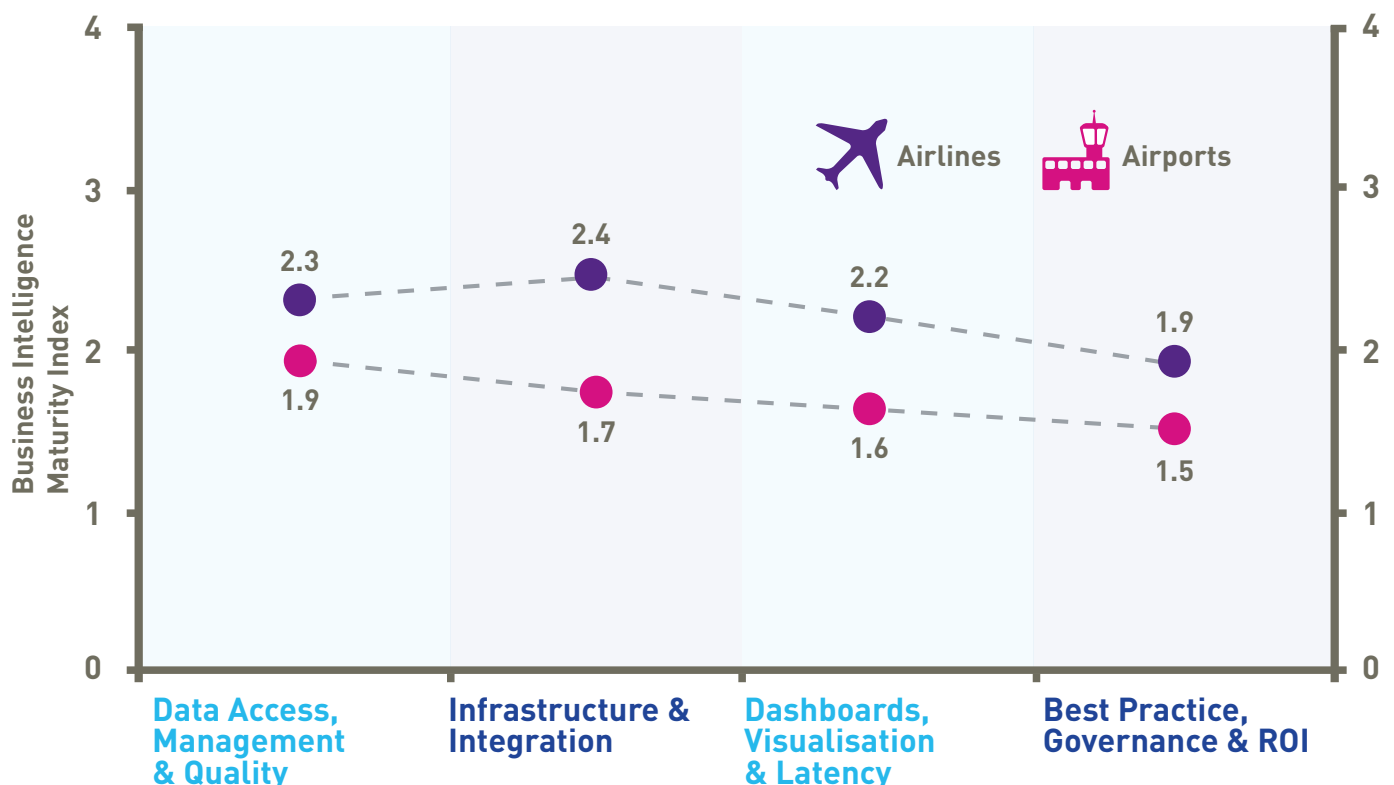
The first is accessing reliable data that can been easily integrated and refreshed to build business intelligence solutions, which has been a focus of much of the industry's initiatives to date. An equally important area of activity

ONLY HALF WAY
TOWARDS BUSINESS INTELLIGENCE GOALS

has been the second area of business intelligence: creating a centralized infrastructure that integrates with all the systems.

The industry as a whole has not made as much progress on the third aspect of good business intelligence – exposing data in a meaningful way to users, whether they are passengers or staff. The ability to provide dashboards and other visualization is not an area they can afford to overlook, because this visualization is an important tool for alerting operations staff when timely action is required to keep a process on track or meet service requirements.

Progress in many areas but a long way to achieve best in class in business intelligence

Priorities when investing in business intelligence solutions

AIRLINE PRIORITIES

Sales & Marketing	Operational Awareness	Passenger Experience
95%	88%	82%

AIRPORT PRIORITIES

Operational Awareness	Passenger Experience	Sales & Marketing
90%	85%	74%

Finally, having well-established governance over the management of business intelligence activities is as important as any of the previous three technical areas. Robust organizational structures and good practices ensure that business intelligence is sustainable. Yet this is the area where airlines and airports feel they have made the least progress to date.

Overall, no airport or airline appears to have reached more than around the half-way mark on the Business Intelligence Maturity Index. Airlines are tracking just above airports in the Index and airline perception may be influenced by business intelligence activity in sales and marketing, which has been underway for some time, whereas airports business intelligence initiatives are more recent.[14]

AIRLINES AND AIRPORTS HAVE DIFFERENT PRIORITIES

All airlines are planning to make business intelligence investments in the coming three years, as are 90% of airports. While airlines and airports have broadly similar ambitions to create greater visibility around the passenger journey, there are key differences in their priorities for utilizing business intelligence.

For airlines, a key element to business intelligence is having better knowledge about their passengers, so they can make shopping for air travel more of a more targeted and responsive retail experience.

"We know from the work we've done with Executive Club members, particularly with our most frequent flyers, that personal recognition is something they increasingly expect from us"

JO BOSWELL
HEAD OF CUSTOMER AND COMMERCIAL ANALYSIS, BRITISH AIRWAYS

Almost three quarters say sales and marketing is the highest priority business intelligence investment area and around half say the passenger experience is the top priority.[15]

Achieving the maximum possible revenue for every seat on every flight is key to improving an airline's bottom line. Chile's Sky Airlines is utilizing business intelligence to optimize capacity, staff productivity and ensure it responds proactively to the changing market place. By using real-time analysis of its historic commercial data and testing the impact of alternative optimization decisions before they are implemented, Sky has been able to make more accurate predictions about future demand and adjust its pricing strategy accordingly. This approach has allowed Sky to protect future high-yield demand and limit lower fares early in the booking cycle, thereby maximizing revenue.

Using business intelligence to understand customers better also allows airlines to deliver a more personal travel experience to their passengers. British Airways' 'Know Me' program organizes and utilizes all the data the airline holds on its customers into a "single customer view" to allow it to serve those customers more effectively. A key aspect of Know Me is personal recognition, which puts information about British Airways customers into the hands of customer-facing colleagues. For example, by accessing tablet computers with specially designed apps, cabin crew can be informed when a customer is flying in business class for the first time, or has reached a new tier of the frequent flyer program, enabling them to welcome that customer and explain the benefits of the cabin, or to congratulate the customer on attaining their new status and thank them for their continued loyalty to the airline. The program also enables the crew to feed back useful information about the airline's most loyal customers, enabling BA to further personalize the service they receive on their next trip.

As part of the program, BA has a test and learn approach to the way it communicates and engages with customers.

In addition, BA is increasingly looking at how it builds survey data into its "single customer view", thereby allowing it to overlay an understanding of customers' behaviors with an understanding of their attitudes and preferences.

"We know from the work we've done with Executive Club members, particularly with our most frequent flyers, that personal recognition is something they increasingly expect from us. For them, the recognition of their status that we can deliver through personal service and an awareness of their preferences, is as important as the tangible rewards they derive from being a member of our frequent flyer program. The surveys we use to monitor the impact of this activity suggest that our customers are very positive about the initiative."

JO BOSWELL
HEAD OF CUSTOMER AND COMMERCIAL ANALYSIS,
BRITISH AIRWAYS

For airports, business intelligence is driven by improving operational awareness, via intelligent systems to share information and track/manage assets, to create a better experience for passengers and greater efficiency for their airline customers. The majority place the highest priority on aircraft movement data, although nearly half rate passenger data as high priority.[16]

An immediate issue airlines and airports both face is that while passengers are very keen to access information about their journey, they are also sensitive about privacy and are cautious about how much they are willing to share with airlines and airports.[17]

However, smart use of non-intrusive passenger information is already providing benefits to airlines and passengers alike at London's Heathrow Airport, which introduced "Positive Boarding" at Terminals 1, 3 and 4 in 2013. The technology, which builds on a similar system in Terminal 5, is compatible with all airline systems and provides passengers with personalized advice to help make their departing journeys smoother; it also improves punctuality by cutting airlines' last minute searches for passengers. When passengers present their boarding passes at the automatic gate to the security area, details from the barcode are matched against the central flight information system and tailored information for the individual flashes up on screen. If the passenger has too

SMART USE
OF NON-INTRUSIVE PASSENGER INFORMATION IS ALREADY PROVIDING BENEFITS TO AIRLINES AND PASSENGERS ALIKE

little time before their flight is due to depart, they are asked to return to check-in to seek help from the airline. This also allows the airline to begin unloading their baggage based on real-time information about where passengers are in their departing journey.

Heathrow airport reports that when Virgin Atlantic and its sister-carrier Little Red adopted the process, in the first week 44% of departing flights had passengers who potentially could have delayed departure. Of these travelers, 700 were informed by the automatic display to promptly make their way to the departure gate and ten late-running passengers were instructed to go back to check-in as they did not have sufficient time to clear security and make their flight, allowing the airline to unload their luggage and depart on time.

AIRPORTS ARE COLLABORATING WITH STAKEHOLDERS TO IMPROVE DECISION MAKING

Airports are also putting in the groundwork to better use data generated across all aspects of their operations and enable sharing with stakeholders to create a better passenger experience and efficiencies.

The past year has seen Switzerland's Zurich Airport replace a number of siloed business intelligence tools in favor of a centralized self-service business intelligence program to improve understanding of operations, track performance, uncover opportunities to streamline and minimize travel delays. GRU Airport – São Paulo International installed a next-generation airport management system and at the heart of its operation has established an Airport Command and Control Center.

This allows the airport and its stakeholders, including airlines, customs, immigration and ground handlers, to collaborate around the same real-time information and make fully-informed decisions on resources and other issues.

In Canada, Québec City Jean-Lesage International Airport began automatically processing operational data from all its airlines and transforming it into actionable information. Relevant data is seamlessly incorporated into the airport management system and the information automatically fed into "action boards", providing the managers with quality data for effective real-time decision making. For example, if the airport knows an arriving flight has a large number of passengers and load, it can allocate more resources to manage this aircraft and divert staff and equipment from flights that require less support.

Up until now, the focus of airlines and airports has been predominantly on laying the foundations for greater sharing of information and for business intelligence to deliver its promise. Tomorrow's focus will be utilizing business intelligence to facilitate more proactive customer services by using predictive analytics. Predictive analysis will not only enable greater flexibility in their operations, it will also ensure better planning and control of the available resources in any scenario.

SAUDIA: DRIVING ATTENTION BACK TO CUSTOMERS

A five-year overhaul of core IT systems and infrastructure and roll-out of an integrated business intelligence platform, has enabled Saudia, the flag carrier for the Kingdom of Saudi Arabia, to make sense of vast amounts of data to make immediate decisions.

"There has been tremendous benefits just about everywhere information is being used. The sales department can immediately evaluate special fares; see how they are affecting sales and tune accordingly. We used to run a batch-based, off-line revenue accounting system, so we did not have a clear picture of recognized revenue until three months later. There was a gap between the decisions of managers and the reality of the operation. Right now, as we close the door of the aircraft, we have actual financials, how much revenue we have made on that flight. This is the power that business intelligence has brought to Saudia.

"Customer satisfaction and improving the service was one of the major objectives behind this, because customers need to be serviced like their transactions on Amazon. If they buy a ticket and want a refund, they don't want to wait three months until they get their money back. Now they can do it online and we guarantee in 72 hours the money will be refunded into their bank account. It's one of the benefits of having all the information available.

"The current phase is to integrate more data, such as flight operations, crew, maintenance and engineering, to help the operations people at the airline. We are trying to provide all the information to our operations control centre, if they see we have a technical issue with an aircraft, what's the best approach? There are so many different ways to recover a flight, but there is only one single cost-effective way to do it.

"I would like to see business intelligence moving to the next generation. We can learn a trick or two from the manufacturing industries. I think the next generation of business intelligence should change the nature of the system remit without intervention by human beings. In manufacturing, assembly-line sensors feed back into machines making goods to change the behavior of the machine.

"If we need to change a flight, open up a class, increase or reduce a fare, we could do that dynamically by feeding that information into the system. It will help reduce the pressure on people, so that rather than expanding the headcount, we become much more efficient and people will be dealing with much more sophisticated issues, rather than reacting."

MUHAMMAD ALI ALBAKRI,
CIO & CFO SAUDIA

THE FUTURE IS PREDICTIVE INTELLIGENCE SUPPORTING PREVENTATIVE ACTION

Before business intelligence, airlines and airports had no choice but to react when "irregular" events such as bad weather, mechanical issues or power failures disrupted their finely-tuned schedules. The advent of business intelligence is enabling the industry to become proactive.

Timely information about an approaching storm or even queues forming at the security checkpoint allows operational teams to take action to minimize the impact.

The next step will be to utilize business intelligence tools, analyze past event and combine live data feeds from multiple sources, both internal to the organization and external, to predict future events and take preventative action before they occur.

In the future, the combination of business intelligence plus predictive analysis will help airlines better manage available resources to improve the passenger experience. It will also help airports to increase optimization of their infrastructure and space to improve services and revenues. Better still, it will allow the industry to add real value for their passengers and their businesses by running scenarios and building the evidence, either to make process changes or introduce new products and services.

Right now forward-thinking airlines and airports are focused on becoming much more proactive and making interactions with passengers more relevant. Some of these initiatives offer a glimpse of the future prize ahead.

PASSENGERS WANT MORE RELEVANT INFORMATION

Passengers are looking for more personal and relevant information about their journey. Airlines are already well advanced in terms of using surveys, website usage and loyalty program data to personalize their offers, but by 2016 the majority will have widened the net much further to take in passenger customer relationship management data, social media comments and requests, individual purchasing behavior, passenger mobile app interactions and smartphone sensor data to make interactions with passengers more relevant.[18]

Airports are also looking to make the passenger journey smoother and more relevant. London City Airport has been running a year-long project, completed in March 2014, to demonstrate the "Internet of Things" – a concept of connecting machines or objects together through a network to monitor an environment, enabling smart control and automated management of that environment.

The airport developed an interconnected sensor network and data hub to track, understand and better manage passenger flow and behavior, bringing the ability to interact with passengers at key touch points. Features included management of passenger movement through the airport, journey time measurement, customer loyalty programs and location-specific services such as personalized planners and gate reminders for passengers, food pre-ordering, locating missing passengers, baggage tracking, airport asset tracking and the ability to locate people in emergency situations.

" This project will help us to manage the passenger journey through the airport and interact with our customers, track assets on-site, and utilize intelligent marketing concepts tailored to an individual's needs. We aim to set an example for airports and other businesses all over the world to follow."

MATTHEW HALL
CHIEF COMMERCIAL OFFICER, LONDON CITY AIRPORT

In future, the customer service experience is likely to become directly relevant to the individual passenger's journey with the advent of beacon technology. This uses Bluetooth to trigger displays of contextual location-specific information on tablets and smart phones. A number of retail store in the USA, including Apple Stores and Macy's, are deploying beacons and SITA Lab, in conjunction with a major airline and airport, is currently investigating the technology's potential within the airport environment.

Beacons could trigger an app on the passenger's smartphone to deliver coupons and offers as they pass through a specific zone in the airport, such as a shop or a lounge. They could also provide airport apps with more precise and low-cost ways to guide the passenger around the terminal. Furthermore, combining an airline app's knowledge of the passenger – who they are, where they are going and the class of travel – with accurate information about the individual's location from the nearest airport beacon can help airlines to find passengers late for a gate.

SHARING INFORMATION WILL HELP ALL STAKEHOLDERS TO GROW

Australia's Sydney Airport is harnessing intelligence about its customers in order to understand what passengers will want and do in the future. A network of more than 400 Wi-Fi access points, 130 people-counters and 50 Bluetooth sensors throughout its terminals assign a unique number to each device to track how people move around and their dwell times.

The benefits of the "Dwell Project" are more proactive and relevant services for passengers. For example, passengers can access step-by-step way-finding on their mobile devices and receive location-based push messaging. For airport stakeholders, enhanced operations management means not just deploying security and cleaning staff to an incident in real-time, but identifying the closest personnel and sending them via the most direct route.

DUBLIN AIRPORT AUTHORITY: MAKING DATA WORK HARDER AND SMARTER

Driven by the need to deliver improved business insight on a real-time basis and to manage performance of key service quality metrics, the authority responsible for running Dublin and Cork airports in the Republic of Ireland has been establishing a strong business intelligence foundation. Now it is focusing on utilizing data to inform decision making across a range of other business areas.

"We have done a range of things around passenger experience. Queues times are critically important to us. Our service quality measure is that no queue time should be greater than 30 minutes. We have developed a series of dashboards to assist in our airport control center, which trigger actions at various points as we approach the threshold. Dashboards will tell you in real time, for example, how many passengers are airside and where they are heading by gate.

"We are consolidating data from a whole range of different sources. If the passenger passes through security, x-ray, or retail, these systems have recorded certain information. The effort so far has been getting the links between the information stored in different systems. Over the short-to-medium term we want to aggregate all the remaining relevant data sources into our data pool.

"We already have a certain amount of predictive analysis. If you look at how we manage queue times, we're effectively overlaying and developing algorithms to predict what the passenger flow might be at, say, 2pm tomorrow.

The actual flow may not turn out exactly as predicted because something unforeseen may happen (e.g flight delay), so we continue to refine our predictive models. We want to get more predictive analysis in place in terms of the full passenger journey and how we can use the pattern of activity in one area (e.g. increased entry into car parks) to forecast what will be the impact on queues at check in and security in 30 minutes.

"We are also in the process of getting an airport collaborative decision making and information sharing project off the ground. We see there is a basis for airlines and airports being able to share information that will make the whole passenger experience a lot smoother and more seamless.

"When a passenger goes through security, the airline is not aware of their whereabouts until that person actually turns up at the departure gate. So it would be useful for them to be aware that a person has gone through security and is not yet at the boarding gate when they should be, thereby avoiding having to take their bags off the aircraft. If the airport is aware that all the flights tomorrow have 85% load fill and 100% of passengers have checked-in online, it can inform the airport what the optimal resourcing plan could be.

"There is a real emphasis on having the hard facts and drilling into things, in order that we can learn and improve from what's happened the previous day or week."

GERRY LUTTRELL,
HEAD OF INFORMATION TECHNOLOGY
DUBLIN AIRPORT AUTHORITY

FINAL THOUGHTS

Airlines and airports know they have some hard work ahead of them to fully achieve best practice and sustainability in utilizing business intelligence across their operations. The vision is in place and there is real commitment to addressing the big challenges of robust data standards and system compatibility, true collaboration and sharing data freely.

By making the transition from reactive to proactive to preventative there are significant benefits to be gained for passengers and the industry alike.

ABOUT THIS REPORT

This report draws on the findings of SITA's technology trends research. Every year SITA publishes the results of the four annual industry research initiatives tracking technolgy trends in the air transport industry. These initiatives do not only monitor the opinions of senior airline and airport executives but also the most important stakeholders of them all: the passenger.

This provides SITA with the unique opportunity to look across all the results combining the airline, airport and passenger views and identify areas of alignment, misalignment, and potential for acceleration.

For more information, go to:
www.sita.aero/surveys
www.sita.aero/ittrendshub
Or search the App Store for ´SITA IT Trends Hub

NOTES AND REFERENCES

Note 1
Page 1
International Air Transport Association, Delivering More Value to Air Travelers, press release 29 October 2013: http://www.iata.org/pressroom/pr/Pages/2013-10-29-01.aspx.

Note 2
Page 4
Passenger IT Trends, issued 2 October 2013 by SITA and Air Transport World: 92% of passengers would use online check-in and 82% would use a kiosk.

Note 3
Page 4
Passenger IT Trends 2013: 76% of passengers interviewed carried a smartphone, up from 28% in 2010.

Note 4
Page 4
Passenger IT Trends 2013: while mobile is not the preferred choice for check-in and boarding, over 50% say mobile is a definite improvement for check-in, boarding passes and flight status.

Note 5
Page 4
Airline IT Trends Survey 2013, issued 19 June 2013 by SITA and Airline Business: 89% say improving workforce productivity and 88% say improving the passenger experience/customer services are investment priorities. Airport IT Trends Survey 2013, issued 12 November 2013 by SITA and Airline Business: 92% say improving the passenger experience/customer services and 83% say improving workforce productivity are investment priorities.

Note 6
Page 4
Airline & Airport IT Trends 2013: 51% of airlines and airports offer flight status notifications via smart phones, rising to 95% and 88% respectively by the end of 2016; 8% of airlines offer bag location status information, increasing to 61%; navigation/ way-finding within the airport and airport status notifications are each provided by 24% of airports, rising to 75% and 79% respectively over the next three years.

Note 7
Page 5
Airport IT Trends 2013: 81% are planning to provide staff services via smartphone or tablet in the next three years, pretty evenly split between 40% committing to major projects and 41% to pilot programs

Note 8
Page 5
Airline IT Trends 2013: 42% of airlines provide electronic flight bags, increasing to 87% by the end of 2016; 36% provide cabin crew mobile-based services, rising to 77% in the same period; 27% provide ground operations and 26% crew rostering/communications, each growing to 71%; and 22% enable aircraft maintenance/engineering staff with moille devices, rising to 71% over the coming three years.

Note 9
Page 6
Source: Airline IT Trends Survey 2012.

Note 10
Page 6
Airport IT Trends 2013: 8% of airports say insufficient data standards is not a challenge and 7% see no challenge with system compatibility and data integration; 8% have fully achieved data access and 7% have fully achieved data quality.

Note 11
Page 6
Airport IT Trends 2012: 80% of airports expect to be sharing their data with airlines by 2015; Airline IT Trends 2012: 53% of airlines expect to be sharing their data with airports by 2015.

Note 12
Page 6
Airline IT Trends 2012 & Airport IT Trends 2013: 41% of airlines and 47% of airports say willingness to share data with third parties is a significant challenge to implementing business intelligence solutions.

Note 13
Page 7
Airline IT Trends: 100% of airlines will be investing in business intelligence in the next three years, 61% of them are planning major projects; Airport IT Trends: 91% of airports will be investing in business intelligence, 50% of these are major programs.

Note 14
Page 8
Airline & Airport IT Trends: for data access, management and quality, airlines scored 2.3 out of 4 on the Business Intelligence Maturity Index and airports 1.9; for infrastructure and integration airlines recorded 2.4 and airports 1.7; for dashboards, visualization and latency, airlines achieved 2.2 and airports 1.6; and for best practice, governance and return on investment, airlines tallied 1.9 and airports 1.5.

Note 15
Page 8
Airline IT Trends: the most important business intelligence investment area for airlines is sales and marketing – 72% cited it as top priority and another 23% as high priority.. In second place 49% said the passenger experience was top priority while another 33% consider it high priority.

Note 16
Page 9
Airport IT Trends: 65% of airports consider aircraft movement data top priority, 48% say passenger data and 43% business transactions.

Note 17
Page 9
Passenger IT Trends: 45% of passengers are comfortable with location tracking, but just 18% would give access to their personal data and only 21% would be open to location-aware advertising.

Note 18
Page 11
Airline IT Trends: By the end of 2016, all airlines will be using website data to personalize; 98% will be using passenger CRM data; 95% will be using customer surveys; and 91% each will be using passenger mobile app interactions history, business transactions and 92% using social media. In addition 65% have plans to use passengers' smartphone sensor data such as location tracking and RFID.

SITA AT A GLANCE

The air transport industry is the most dynamic and exciting community on earth – and SITA is its heart.

- Our vision is to be the chosen technology partner of the industry, a position we will attain through flawless customer service and a unique portfolio of IT and communications solutions that covers the industry's every need 24/7.

- 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 around 450 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.

- We sponsor .aero, the top-level internet domain reserved exclusively for aviation.

- In 2012, we had consolidated revenues of US$1.57 billion.

For further information, please visit **www.sita.aero**

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