MOBILITY IN AIRLINES

ISG

Adoption of specialized mobile aviation applications has increased significantly over the past two years.

Airlines and airports can use mobile channels to offer better service to passengers at various touch points along the journey.

Mobile technology is rapidly becoming integral to airline operations and the passenger experience. A joint study conducted in 2012 by Airline Business and SITA, a global provider of aviation technologies and services, found adoption of specialized mobile aviation applications has increased significantly over the past two years. Passengers are increasingly using their smart phones and tablets to book tickets and reserve seats. The Airline Business and SITA study forecasts that by 2015, 90% of airlines will sell tickets through mobile and social media channels, a growth of 51% from 2012. Many customers are also using their mobile devices for self-service check-in, seating assignments and baggage tracking, and for real-time information on flight arrival and departure times and weather and traffic conditions. Airlines are also looking at mobile platforms to provide passenger merchandising of airline and airport ancillary services.

Airlines have long recognized the importance of the business traveler; in fact, business travel accounts for a majority of airlines' revenue. Therefore, key trends in the enterprise are of great interest to airlines. A 2012 survey of ISG clients found that nearly 90% of companies surveyed have completed or are developing an enterprise mobile strategy. Large enterprises are recognizing the strategic importance of mobile technology, and are allowing employees to use mobile devices for both personal and professional use; many of these employees are frequent business travelers.

Some airlines have introduced or are preparing to introduce iPads for cabin crew to reduce the complicated paper based/manual operations in performing their day-to-day functions like meal distribution and passenger management.

Airlines and airports can use mobile channels to offer better service to passengers at various touch points along the journey, delivering real-time, relevant, and value-added information, offers, discounts, and personalized services that help build a trusted relationship.

This whitepaper outlines how existing IT infrastructure as well as investments in new platforms is driving emerging mobile trends and enabling strategies to build business and drive customer satisfaction.

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MOBILE IN AVIATION SPACE: A TRANSFORMATIVE FORCE

A front-runner in adopting innovative technologies, the airline industry's shift from paper-based ticketing to internet-enabled bookings allowed passengers to individually research, negotiate and purchase tickets from different sources. This created a host of new and cheaper travel options. As internet connectivity via mobile devices has increased, airlines are investing in technologies for passenger convenience. The Airline Business and SITA study shows that over 90% of airlines surveyed are increasing their investments in mobile capabilities to improve customer's airport and in-flight experience.
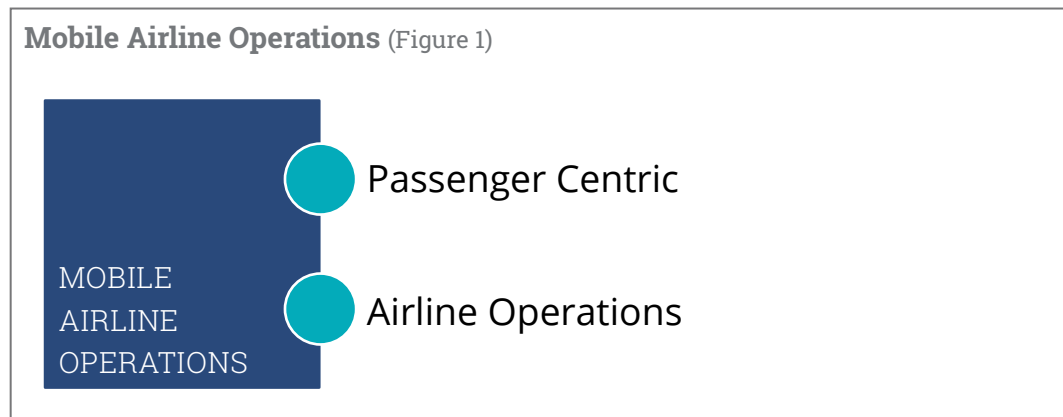
Airlines are building software tools to deliver individualized information to passengers on their smart phones. Emerging applications enable passengers to book tickets, obtain boarding passes, coupons for airport shops, and check-in and payments facilities on their smartphones and tablets. Through these services, airlines provide personalized communication and benefits to aid today's 24x7 connected travelers.

According to the Airline Business and SITA study, the three top priority IT investments for airlines are to improve customer service, support revenue opportunities and reduce the cost of business operations. Airlines have also recognized the need for standardization of traffic documents, regulations and procedures to support the growth of the industry.

Airlines face increasing pressure to invest in new emerging technologies and to deliver efficient, cost-effective but differentiated services to customers. Mobile technology is clearly impacting every step of the travel process, providing a minefield of choices and potential risks and opportunities for airlines.

MOBILE AND AIRLINE OPERATIONS

Many airlines seek cost-effective mobile solutions to work in tandem with legacy IT infrastructure, without disrupting business operations. Service-oriented architecture (SOA) with web-based services and business logic defined at the backend can help airlines leverage existing infrastructure for different channels, including mobile phones. In addition to optimizing infrastructure utilization, this approach can help airlines showcase a single view of services across channels.

Airlines are building software tools to deliver individualized information to passengers on their smart phones.

Mobile Airline Operations (Figure 1)

MOBILE AIRLINE OPERATIONS

Passenger Centric

Airline Operations

MOBILITY IN AIRLINES

Mobile-enablement or smart mobility should focus across an airline's operational and passenger travel landscape. Let's look at the functions that could potentially be mobile-enabled and result in quicker decisions, improved operational efficiencies and enhanced passenger experience and employee loyalty.

Passenger Centric

In the age of passenger-centric anywhere, anytime access, mobile technology is moving towards Near Field Communication (NFC), augmented reality and Smartphone sensors (Figure 2). With technologies like NFC, airlines can offer a seamless customer service experience for mobile check-in and boarding, self- baggage tagging, ancillary revenue sales and movement tracking. Augmented reality improves passenger navigation, provides personalized s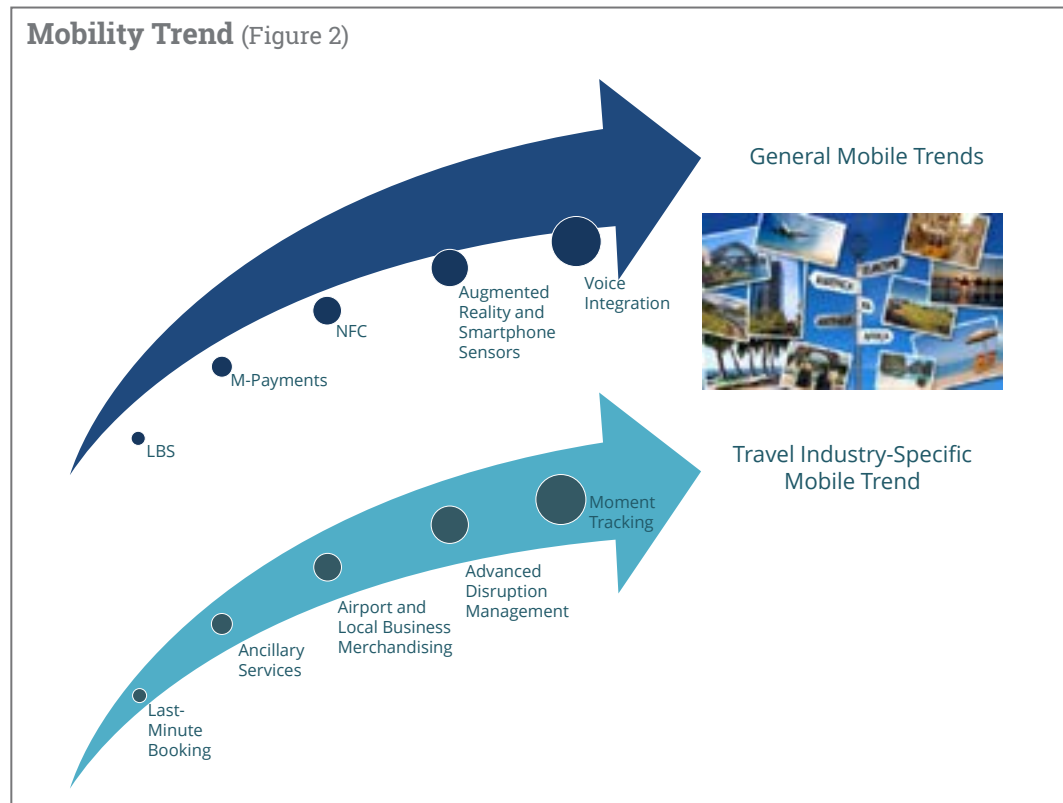ervice and displays other passenger feedback. As self-service kiosk use at airports declines in favor of mobile services, the smartphone has clearly shifted the focus from e-commerce to m-commerce.

The always-connected traveler receives information and promotions on smartphones based on their status, location, personal needs and specific situation. Airlines utilize personalized ancillary purchase experience and match customers' preferences with customer profiles to increase up-sell opportunities. Benefits such as seat pitch, boarding priority, and club room access can target specific travelers with amenities, influence traveler loyalty and help differentiate the airline from the competition.

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Mobility Trend (Figure 2)

General Mobile Trends

Voice Integration

Augmented Reality and Smartphone Sensors

NFC

M-Payments

LBS

Travel Industry-Specific Mobile Trend

Moment Tracking

Advanced Disruption Management

Airport and Local Business Merchandising

Ancillary Services

Last-Minute Booking

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Airlines use destination, number of travelers, trip duration, travel time etc. to deliver relevant content. Information about the traveler's destination can be used to offer destination-specific content (such as destination deals and offers, weather forecast, places to visit). The trip duration can be used to offer additional content. Information about groups of travelers helps airlines offer discount packages and deals. Figure 3 shows an example of how mobile apps can deliver relevant personalized content to travelers.

Mobile Apps Delivers Relevant Content (Figure 3)

Airlines can use personalized content to increase revenue flow and the mobile platform as a channel for advertiser revenues, which can in turn help airports sell retail space configurations in a matter of seconds, which can be critical during crisis offerings. Airlines use mobility to improve operations, reduce costs and enhance employee management, a key long-term goal for any organization. Figure 4 depicts the airline industry in the next few years and ties future success to new mobility products and innovations that transforms business models and operations.

Airline Industry in the next few years (Figure 4)

Airline Operations

Airline operations that can benefit from smart mobility include:

Flight Operations: A real-time hybrid solution – interoperable with desktop and mobile devices - to manage flight operations provides a complete overview of the business in real time. Mobile devices provide pilots with flexibility to manage a number of tasks such as charting maps, capturing logbook information and reviewing manuals. At the touch of a button pilots can access flight charts, fleet manuals, crew bulletins, training materials and

Crew Management: Smartphones and tablets provide the cabin crew with systems that deliver ready access to insightful passenger information, informing the crew about passenger's requirements and their preferences. By permitting multiple crew-centric functions, mobility transforms in-flight operations, resulting in improved productivity, customer service and brand value as well as increased revenue.

Content and Features

When a traveler books a flight airline staff members can use itinerary information to provide people-specific content. Airlines can deliver relevant content such as destination details, number of travelers, trip duration, travel time etc., to passengers. The information is also passed on to the crew members along with the preferences, thereby improving overall employee productivity. Ground staff members use this information to track and deliver baggage.

Airlines can use personalized content to increase revenue flow in a number of ways. Examples of how mobile platforms can be used include:

1. Offer baggage information to ground staff members in case of baggage mishandling.

2. Better communication with staff members regarding information such as rosters, training material, internal communication, meal preferences etc.

3. Offer partner services such as hotel or car arrangements.

4. An advertising channel and a way to charge advertisers. This will also help airports sell their retail space offerings.

5. Promote last-minute sales windows, upgrades and other deals.

6. An extension of inflight entertainment, whereby passengers create their own personal entertainment system by paying to download videos, music, movies etc. at the airport.

Return on Investment

Mobile applications increase self-service activity and improve loyalty, enhance customer experience and promote the airline brand. By initiating more mobile check-ins and reducing kiosk deployment, airline staff can concentrate on disabled or less technology-savvy passengers. Mobile technology also helps reduce informational questions about gates, departure times and airline policies since everything is readily available on-the-go. By investing in mobile apps, airlines can compete against travel agencies and help passengers throughout the complete travel life cycle.

Airlines can generate new revenues by offering smart mobility-enabled personalized services such as sale of perishable products, empty seats or overhead space through real-time auctions.

Mobile applications increase self-service activity and improve loyalty, enhance customer experience and promote the airline brand.

Security

Mobile phones are transforming into mobile wallets at a rapid pace, with agreements between telecommunication companies, banks and credit card companies. In emerging economies such as Africa and India, mobile wallets offer a safer alternative to cash and are used to pay for goods and services purchased at airports. For mobile payments to expand, airlines must ensure compliance with stringent industry security regulations that protect credit card and passenger information – from the device, right through to connectivity and applications.

User experience management

Airlines seek services to enhance the customer experience, increase revenue and improve employee productivity. Smart phones allow users to request and acquire useful information. For example, short messaging service (SMS) has been extensively adopted to disseminate updates on flight plans and irregular operations in emergency situations. Mobility has further enabled the airline industry by providing ways to inform passengers about public transport disruptions, assist in ordering taxis and booking parking lots, and suggest shopping choices based on customer purchase history and preferences.

Airlines are moving towards adapting a complete mobile check-in, using NFC to bypass human intervention and enhance the boarding experience by saving time and shortening queues. Mobile technology's foothold is exponentially growing in the travel space, with numerous apps available for users to book tickets, self-train and report, and perform a range of other functions.

Agility

Today's tech-savvy employees and passengers are more comfortable with mobile technology advancements than airlines and airports. The rapid pace of technology evolution is matched by users eager to get the newest and latest technology. As tech-savvy users demand more and more, airlines need to constantly match technology and user needs to sustain a competitive advantage.

Technology Platform

Many airlines are looking to mobile-enable their services, and are taking their first steps towards implementing a mobile strategy. This involves choosing between a native, web or hybrid development approach for mobile applications ("app").

The decision between native, web or hybrid is critical, because companies are increasingly allowing multiple mobile devices for both personal and professional use. ISG has found that nearly 80% of companies allow employees to use iOS and Blackberry devices, nearly 60% allow Android devices, and 55% allow Windows devices. Given the proliferation of mobile operating systems for corporate travelers, airlines cannot simply target one mobile OS – a multi-device strategy is critical.

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Native Apps

Native apps are binary executable files explicitly downloaded and stored on the file system of the mobile. The most popular way to download a native app is by visiting an app store, such as Apple's App Store, Android's Marketplace or BlackBerry's App World.

The airline industry needs to choose between the three mobile apps based on a number of parameters, such as budget, timeframe, internal resources, future of the market, required application functionality and the growing needs of the customer. In choosing the platform to be used, many airlines face a tradeoff between user experience on the one hand, and cost and time-to-market on the other.
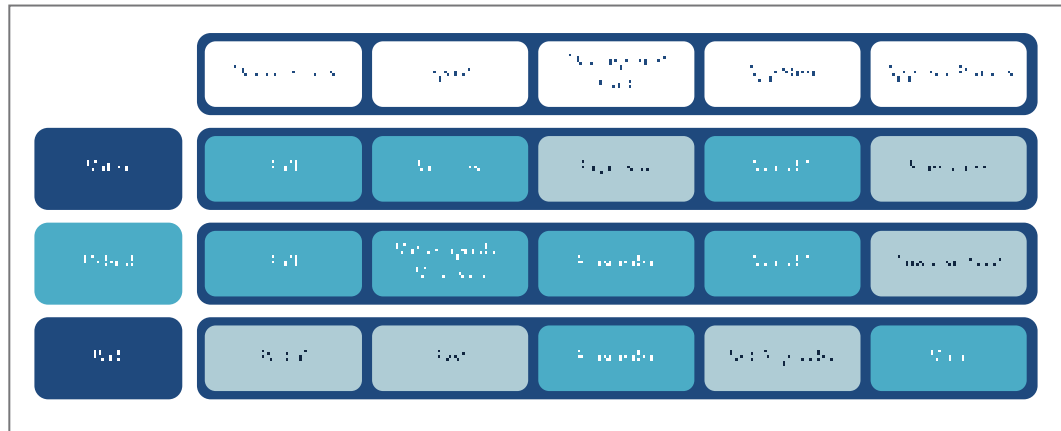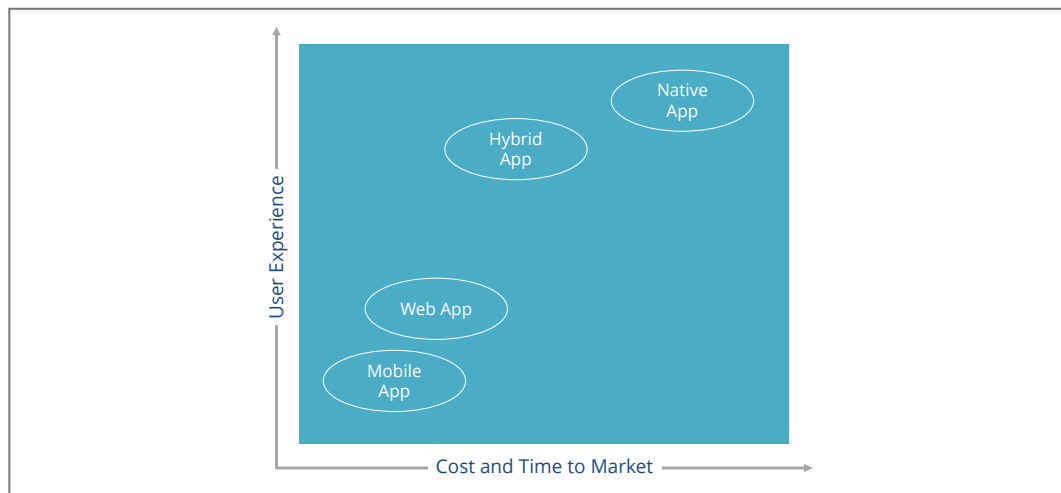

Mobile Web Apps

Mobile web apps are developed using web technologies – HTML, CSS and JavaScript. The apps are rich, browser-based applications that are also available offline.
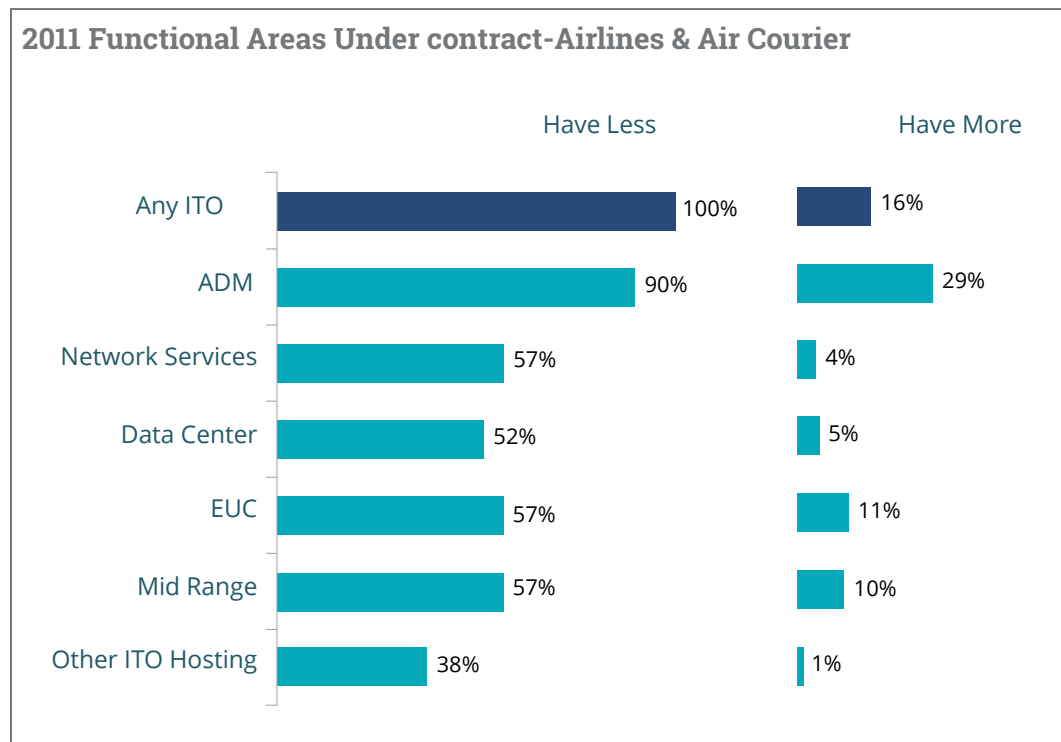
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THE IMPERATIVE FOR AIRLINES

An airline developing and implementing a mobile technology solution will likely require external resources and additional investment. This is one area where outsourcing can help. At a time when unlocking the value of current operations to set the stage for long-term profitability is imperative, outsourcing allows top management talent to address the core business and underlying value drivers, rather than focusing on technology and cost-cutting in the sourced areas. Not surprisingly, ISG Research shows that Airlines are heavy users of Application Development and Maintenance (ADM) outsourcing. The chart below shows that 90% of companies in the Airline and Air Courier vertical source some component of the ADM work, which is 29% more than the average of G2000 companies.

2011 Functional Areas Under contract-Airlines & Air Courier

	Have Less	Have More
Any ITO	100%	16%
ADM	90%	29%
Network Services	57%	4%
Data Center	52%	5%
EUC	57%	11%
Mid Range	57%	10%
Other ITO Hosting	38%	1%

Airlines that source some or all of their ADM work should ensure that their partner understands these emerging mobile trends, and has the capability to rapidly adjust to customer expectations and emerging mobile platforms. Airlines that have not yet sourced should ensure mobile is a key area in ADM sourcing discussions. A service provider's vision, capabilities, ability to execute and commitment to ongoing innovation should all be thoroughly vetted in any ADM sourcing decision.

CONCLUSION

By transforming the future of air travel, mobility is no longer an option, but rather a critical business requirement to unlock productivity and achieve competitive advantage. However, organizations need to tread carefully and decide whether to expand existing resources or

make capital investments and build new IT infrastructure. They need to balance the risks and rewards that co-exist with today's business constraints and tomorrow's demands for anywhere, anytime information access.

Organizations that delay embracing the inevitable proliferation of enterprise mobility may find themselves hamstrung by inflexible legacy systems environments. To achieve the vision of a mobile future, airlines must invest in next-generation technology that automates manual tasks, shares information and provides proactive communication to the passenger. This will transform the overall passenger experience and create dynamic improvements in operations.

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