FOREWORD

The Airline IT Trends Survey, co-sponsored by Airline Business and SITA, shows a continued, though modest, upward trend in the level of absolute IT investment by airlines.

This trend mirrors not only the improving industry fundamentals, but also greater recognition of the value IT can bring to airlines and their customers. The level of investments being made by airlines in new IT projects is a testament to this.

The rise of mobile technology once again dominates the airline IT strategy landscape, as it has for the last few years. This transformational trend provides us with an opportunity to look back and assess whether the expectations for mobile technology expressed four years ago in our 2010 survey have taken shape.

As is often the case with new technologies, adoption rates lag expectations. Mobile is no exception. Nevertheless there are good reasons to believe the rapid adoption of smartphone technology by passengers will be the catalyst to meet and exceed the early ambitions expressed in 2010.

The extension of self-service into new areas is taking shape, with disruption management slowly becoming the next frontier. Over the next three years there will be a leap in the number of airlines following self-service innovation leaders by deploying technology to help passengers with better information and recovery options during times of disruption.

We thank all our respondents for their continued support, without which this survey would not be possible, and welcome any feedback or comments.

For more information on all our surveys and accompanying features and analysis, visit www.sita.aero/surveys

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Chief Executive Officer, SITA

Max Kingsley-Jones  
Editor, Airline Business
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IT SPENDING SHOWS SIGNS OF A SUSTAINED RECOVERY

AIRLINE IT SPEND REMAINS STABLE

Although IT spend as a percentage of revenue has tracked down slightly in recent years, the absolute amount has been increasing on the back of rising industry revenues.

It gives a strong indication of a sustained, if slow, recovery of IT investment in step with the improvement in the industry’s economic performance. IATA is forecasting higher revenue and profit levels this year, following steady increases in 2012 and 2013. It also reflects a stronger outlook among airline executives, particularly in the U.S. and Europe.

The forecast for 2014 indicates a slight uptick in overall IT spend to 2.2% of revenues driven mainly by higher capital investment in new generation systems and infrastructure.

IT & Telecoms spend as % of revenue

- IT operating spend
- IT capital spend

<table>
<thead>
<tr>
<th>Year</th>
<th>IT Operating Spend</th>
<th>IT Capital Spend</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>1.6%</td>
<td>0.7%</td>
</tr>
<tr>
<td>2012</td>
<td>1.5%</td>
<td>0.6%</td>
</tr>
<tr>
<td>2013</td>
<td>1.5%</td>
<td>0.6%</td>
</tr>
<tr>
<td>2014</td>
<td>1.4%</td>
<td>0.8%</td>
</tr>
</tbody>
</table>
WIDESPREAD BUDGET INCREASES

The increase in IT spending forecast for this year will be broad-based with two-thirds of airline CIOs expecting their 2014 budget to increase in absolute terms with only 16% anticipating a fall.

The longer term outlook is more cautious, but still positive overall. Even so, more than half of the respondents expect further increases of absolute spend in 2015, and more than one-third (37%) of CIOs expect IT budgets to remain stable, over double the number of CIOs for 2014.

STRONG RECOGNITION OF TECHNOLOGY’S IMPACT

The survey results indicate there is widespread recognition of the positive impact technology is having on air travel and its role in helping airlines stay ahead of the competition.

Three-quarters of airlines are expecting to invest more heavily in new IT projects this year, compared to 2013.

Major new investments are aimed at boosting self-service choices for passengers, as well as leveraging the mobile devices carried by passengers. In addition, the majority of airlines also expect to increase spending on maintaining existing IT systems.

<table>
<thead>
<tr>
<th>Change in IT budget from previous year</th>
</tr>
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<tbody>
<tr>
<td>Spend for operations &amp; maintenance of existing systems</td>
</tr>
<tr>
<td>Spend for new IT initiatives</td>
</tr>
<tr>
<td>Increase</td>
</tr>
</tbody>
</table>
IS MOBILE LIVING UP TO EXPECTATIONS?

Not since the heyday of the Internet boom has a technology been so enthusiastically embraced as mobile devices. Smartphones have only been around since 2007, but their rapid adoption by both consumers and global industries have turned them into indispensable everyday tools. Today, 100% of airlines are investing in the mobile space.

HAVE MOBILE INVESTMENTS PAID OFF YET?

The first wave of mobile investments was initiated several years ago, but overall our survey indicates that only around 40% of airlines think mobile services are performing at least “as expected”.

Interestingly, however, over one-third of airlines do not actively track many of the key performance indicators, such as cost savings, usage data, download stats, or revenue generation.

With parallels to the early adoption of the Internet, the disruption caused by mobile is so significant that airlines feel that they must invest in mobile services to ensure that they are not left behind.

Performance indicators for mobile investments

- Customer ‘lifetime value’ e.g. increase in loyalty, change in demographic: 56% above expectations, 44% as expected, 46% below expectations, 34% not tracked
- Mobile apps downloads, user satisfaction & retention: 46% above expectations, 55% as expected, 34% below expectations
- Mobile self-service usage data e.g. check-in, boarding: 34% above expectations, 66% as expected, 26% below expectations
- Cost savings e.g. staff or equipment: 59% above expectations, 41% as expected, 39% below expectations
- Efficiency gain incl. staff re-deployment: 61% above expectations, 39% as expected, 39% below expectations
- New revenue generation: 55% above expectations, 45% as expected, 40% below expectations
- Increased ability to ‘personalize’ through direct interaction or data gained via mobile: 63% above expectations, 36% as expected, 3% below expectations
LOW COST AIRLINES LEAD THE WAY

One of the key performance indicators tracked by many airlines is mobile usage data for self-service tasks. Most indicate they are pleased with progress (66%), while only 11% are not happy. Yet, although mobile usage has grown in the last three years, it has been slower than many airlines predicted.

For example, in 2010, the results of our survey showed that mobile check-in was used by just 1.2% of passengers with the expectation that this would increase rapidly to 9.3% within three years, which would have been more than a seven-fold increase. However, this year’s results show that only half this level has been achieved, with the global average standing at 4.6% of passengers using mobile check-in.

Nevertheless, some airlines have been more successful than others in driving adoption of mobile check-in. Low cost carriers in particular have nearly reached the predicted adoption rate, averaging at 9% of passengers, and some airlines reach highs of 15% usage already.

Looking forward, airlines remain optimistic for mobile check-in, although there has been a moderation of expectations compared to the early days of mobile, with the global average adoption rate predicted to rise 10 percentage points to 15% by 2017.

BOOSTING MOBILE USAGE

To achieve their mobile ambitions, all airlines are taking steps to boost passenger usage, with none willing to wait for the shift to happen automatically.

Most airlines (81%) are increasing awareness of their mobile services and adding more services to increase the attractiveness of their mobile apps to the passenger.

There is also a strong focus on improving usability of mobile apps (95% of airlines). This issue was highlighted in the 2013 ATW/SITA Passenger IT Trends Survey which found that usability issues were the reason the vast majority (78%) of passengers don’t use a mobile phone for travel services.

The figures are an acknowledgement that mobile apps today are not sufficiently mature to attract passengers in large numbers. Both functionality and ease of use must evolve further if airlines are to be able to take advantage of the unique opportunities that the mobile channel can offer. This will require enhancements, such as greater integration with other mobile services, location based services, and more personalization.
MOBILE TO DRIVE ANCILLARY REVENUE

Although the uptake of mobile check-in has been slower than originally expected, the mobile channel continues to be seen by airlines as a major opportunity for sales activity. Most airlines already offer fare search and ticket purchasing via their mobile app, but have yet to fully exploit the potential for boosting ancillary revenue.

Today the airline website is the dominant direct sales channel for generating ancillary sales and is expected to remain so in the medium term. However, strong growth is expected from mobile.

Currently 37% of ancillary sales come through websites, while 2.4% are via mobile phones. Nevertheless, by 2017, the mobile channel is expected to contribute nearly five times as much, representing 11.6% of total ancillary sales. While this target is ambitious, airlines have a number of factors working in their favour.

- Increases in smartphone ownership have been much quicker than originally expected and have already achieved a high level of penetration among travelers
- Many passengers have become familiar with using websites for e-commerce, so the transition to mobile is not a big leap
- Mobile phones are with passengers throughout their journey expanding the opportunities to engage on the move – before, during, and after their flight
MORE SHOPPING ON MOBILES

The ambition of airlines is to make shopping services as widely available on smartphones as on a website. By 2017, around 75% of airlines will have achieved this. Today personalized offerings to passengers are not widely used by airlines, though some offer them on websites. Today, only 28% of airlines offer a truly targeted experience on their website, but another 44% plan to add this capability over the next three years. This will change within three years with around 70% of airlines using this technique to boost sales. Interestingly, by this time more airlines expect to offer real-time personalization on mobile than on their website.

MOBILE SERVICES BECOME THE NORM

Beyond sales, airlines rapidly continue to ‘add value’ to their mobile offering by deploying new services to keep passengers informed and in control. Over the next three years:

- Flight status updates will be universally available
- Baggage notifications will be provided by over two-thirds of airlines
- Recovery options in times of disruption will be offered by almost three-quarters of airlines

Airline deployment of mobile self-service

<table>
<thead>
<tr>
<th>Service</th>
<th>2010</th>
<th>Today</th>
<th>By 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flight status notification</td>
<td>42%</td>
<td>62%</td>
<td>96%</td>
</tr>
<tr>
<td>Check-in</td>
<td>27%</td>
<td>66%</td>
<td>94%</td>
</tr>
<tr>
<td>Boarding passes</td>
<td>4%</td>
<td>11%</td>
<td>53%</td>
</tr>
<tr>
<td>Disruption Management</td>
<td>11%</td>
<td>4%</td>
<td>66%</td>
</tr>
<tr>
<td>Missing baggage management</td>
<td>23%</td>
<td>11%</td>
<td>91%</td>
</tr>
<tr>
<td>Non-flight specific services</td>
<td>6%</td>
<td>6%</td>
<td>6%</td>
</tr>
<tr>
<td>Flight related services</td>
<td>62%</td>
<td>58%</td>
<td>52%</td>
</tr>
<tr>
<td>Offer truly targeted/service</td>
<td>23%</td>
<td>20%</td>
<td>20%</td>
</tr>
<tr>
<td>Offer service experience</td>
<td>12%</td>
<td>39%</td>
<td>40%</td>
</tr>
</tbody>
</table>

Airline deployment of mobile e-commerce
EVERYTHING SELF-SERVICE?

Globally self-service is progressing steadily with the mobile channel growing at the fastest pace. Ticket booking through airline websites has now reached 30% globally, while the proportion of check-in using a mobile, kiosk or the web has reached 38% of all check-ins, up from 28% in 2010.

However, drilling down on the results indicates a wide variability in the performance, reflecting different self-service strategies among airlines and the varying success of those strategies. For example, the airline with the highest passenger usage of web check-in has achieved a level three times higher than the global average and 40 times higher than the lowest usage rates reported. Similarly, some airlines have achieved levels of kiosk check-in as high as 50% of passengers, while other airlines have only reached 2%.

Even the relatively new mobile self-service check-in option is seeing adoption rates range from as low as 1% of passengers to as high as 15%. At the top rate, usage is higher than the global average for kiosks, despite kiosks being around for much longer.

Not surprisingly, it is the low cost carriers that have been most successful in driving up self-service adoption, with levels above the global average for both booking and check-in.
BARRIERS REMAIN

Despite most airlines offering some form of self-service check-in, some airlines are still struggling to convert passengers. This may be due to cultural reasons, or a lack of airport infrastructure. However, particularly with mobile self-service, to improve uptake rates airlines need to build on, rather than simply copy the functionality of their website.

Airlines expect 15% of passengers to use their mobile to check-in by 2017 indicating a strong level of confidence that they can overcome existing barriers.

An increasingly common trend for airlines is to remove the check-in step from passengers altogether. Known as “automatic check-in”, only 20% of airlines currently offer this option, but the expectation is that it will grow strongly to almost 10% by 2017, from only 2% today. It makes mobile and automatic check-in the two fastest growing check-in channels.

NOW SELF-SERVICE BAGGAGE

The extension of self-service into new areas is taking shape. In particular, by 2017 over 75% of airlines plan to deploy kiosks with new functionalities that go beyond the simple check-in to include passport readers and information services.

However, right now the main focus for airlines is on improving self-service baggage management, which is seen as a barrier holding up the adoption of end-to-end self-service.

One-third of airlines have deployed assisted bag drop, with another 53% intending to follow over the next three years. Full self-service bag drop remains more difficult to implement and only 9% of airlines have done so to date. As the concept spreads this is expected to increase to 69% of airlines by 2017.

By this time other baggage self-service initiatives, such as bag tag printing and missing bag reporting, will also become widely available from the majority of airlines.
DISRUPTION MANAGEMENT: THE NEXT FRONTIER FOR SELF-SERVICE

The leaders in self-service innovations are starting to deploy services to help passengers with better information and recovery options during times of disruption. This will be the next frontier for self-service as the 14% and 11% of airlines currently providing disruption management solutions to passengers via kiosk or mobile respectively, rockets to 63% and 73% respectively, of airlines by 2017.

Currently the focus is on addressing communications to passengers and between stakeholders. Just over half of the airlines surveyed are able to inform passengers in real-time through their mobile should a disruption occur. By 2017, this will increase to 92% of airlines.

The next development is to provide more efficient recovery from disruption. Today, around 20% of airlines have invested in tools, such as automatic re-booking technology.

The aim is to implement a passenger centric solution that empowers passengers to choose alternatives most relevant to their needs either using kiosks or mobile self-service solutions. Currently, only a few airlines have deployed these types of solutions, but almost two-thirds of airlines plan to invest in this area in the next few years.

Today airlines lack the ability to capture events across all systems and provide real-time data to respond appropriately. Handling disruption proactively means airlines need to improve overall situational awareness across their own organisation but also between other stakeholders. This is an area the majority of airlines aim to address by 2017.

73% OF AIRLINES PLAN TO OFFER DISRUPTION MANAGEMENT SOLUTIONS VIA MOBILE BY 2017

Deployment of disruption management solutions

[Diagram showing the deployment of disruption management solutions over time, with key milestones and percentages for different services like real-time notification, social media communication, stakeholder communication, differentiated re-booking, mobile tools for staff, and mobile tools for passengers.]

2014 AIRLINE IT TRENDS SURVEY | © SITA 2014
METHODOLOGY

ABOUT SITA’S AIRLINE SURVEY
The Airline IT Trends Survey, co-sponsored by Airline Business and SITA, is well established as the global benchmarking survey for the airline industry. The SITA surveys (www.sita.aero/surveys) investigate emerging trends and technologies that are set to transform the industry in the years to come. Business Intelligence, Mobile Travel and Passenger Management are at the forefront of this change, and tracking their evolution is an important element in this survey. Other emerging and established trends are tracked, and, as every year, we benchmarked the industry IT spending in 2014 and beyond.

The survey was first produced in 1999, and was designed to offer all air transport industry stakeholders the latest facts, figures and trends related to technology adoption and spending. Comparisons to previous surveys are made where appropriate, although the respondent sample may vary between years.

Questionnaires were sent to a senior IT executive in each of the top 200 passenger carriers, including low cost operators, together with carriers representing important players in the regional and leisure sectors during spring this year. This year’s respondents together carry more than 50% of the world passenger traffic, providing a clear insight into IT strategic thinking and developments for the industry. The response to this survey is confidential, and the responses are received by an independent research company. The data analysis is based on the aggregated response of all airlines.

This year we have further refined the data weighting system to ensure that it is a representative sample in relation to global passenger traffic and to compensate for annual fluctuations in the respondent group. Using the IATA’s annual passenger traffic statistics, we applied a coefficient to each region based on the proportion of traffic the region contributes to the global total. (N.B. We focused on passenger traffic as this is the most reliable, tracked and publicly available data).

As such, results from this year’s survey cannot be directly compared to those from previous surveys, which used a different weighting methodology. The 2014 passenger weighting methodology has been applied to our survey results going back to 2010 and is used in all historical comparisons in the report.
RESPONDENTS PROFILE

The respondents this year are passenger airlines including low cost operators, together with carriers representing important players in the regional and leisure sector. The Survey is truly a global one, and we received a significant response from major carriers in every geographical region.

Split of respondents

For more information go to:
www.sita.aero/surveys
www.sita.aero/ittrendshub
Or search the App Store for ‘SITA IT Trends Hub’.
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 2013, we had consolidated revenues of US$1.63 billion.

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