The Airport IT Trends Survey

Executive summary

2010 A joint ACI, Airline Business and SITA survey
This is the seventh annual Airport IT Trends Survey, delivered in partnership by Airline Business, the Airports Council International and SITA, tracking key technology trends.

The survey received 128 responses from airports and airport operators, representing the views of over 220 airports around the world. This strong support underlines the importance of the survey’s global benchmarks to the industry.

This year’s results are marked by a return of business confidence among the airport community, with IT&T budgets increasing and IT spend looking positive for this year and into 2011. Nevertheless airports are looking to their IT&T departments to deliver business efficiencies. As the survey shows, reducing the cost of business operations is the top driver of investment in technology. Such investments include e-gates, passenger monitoring solutions and use of wireless devices to enable staff to work remotely.

Self-service will continue to be the approach in passenger processing for most airports. Kiosks for check-in are already mainstream and airports are starting to deliver other self-service kiosk functionalities. Similarly, as providing flight status information to passengers’ mobile phones is set to become a standard service offered by airports, other services via the traveller’s mobiles are being explored.

On the operations side, the key IT projects are those promoting greater information collaboration between key airport stakeholders. The survey suggests that airports are focusing on combined stakeholder operations control centres and tools that support such collaborative decision making.

This booklet provides some of the headlines from the survey’s results and we would like to thank all of those airports that took part in the research and are counting on your continued support in years to come.

To purchase the full survey, go to www.flightglobalshop.com
Airport business confidence has returned. For the majority of airports, IT&T budgets increased last year, with the average IT spend reaching 3.6% of revenues (base: all respondents).

The IT spending outlook for this year and 2011 remains positive, with many airports expecting a further increase in budgets. Globally, only 21% of the respondents are forecasting that budgets will decrease in 2011, but there are considerable differences in expectations across the regions.

**IT&T spend as % of revenue**

<table>
<thead>
<tr>
<th>Year</th>
<th>IT&amp;T Spend as % of Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>2.7</td>
</tr>
<tr>
<td>2009</td>
<td>3.4</td>
</tr>
</tbody>
</table>

**Priorities in the IT investment decision - investment areas**

<table>
<thead>
<tr>
<th>Area</th>
<th>Low Priority</th>
<th>High Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airport security</td>
<td>45</td>
<td>37</td>
</tr>
<tr>
<td>Passenger processing and related services</td>
<td>40</td>
<td>34</td>
</tr>
<tr>
<td>Airport operations</td>
<td>37</td>
<td>42</td>
</tr>
<tr>
<td>Passenger security</td>
<td>26</td>
<td>37</td>
</tr>
<tr>
<td>General IT infrastructure upgrades</td>
<td>24</td>
<td>41</td>
</tr>
<tr>
<td>Runway operations</td>
<td>23</td>
<td>24</td>
</tr>
<tr>
<td>Baggage processing and management</td>
<td>21</td>
<td>33</td>
</tr>
<tr>
<td>Business support functions</td>
<td>18</td>
<td>40</td>
</tr>
</tbody>
</table>

Base: Those who answered in 2009 & 2010 – unweighted  
Base: Those respondents answering – unweighted
Adoption of kiosk check-in by airports has reached high global penetration, with further growth, albeit at a slower rate, expected. Today 60% of airports have already implemented kiosk check-in and another 26% are planning to do so by 2013.

At the same time, airports are slowly adding other self-service options. This year shows a significant rise in the number of flight transfer kiosks and even more airports planning for future deployment. Airports are also starting to invest in e-gates to help reduce waiting times and speed passenger processing.

### Strategy for kiosks

- 25%: We do not have common use kiosks and do not plan to implement common use
- 17%: Increase total number of kiosks – mainly for check-in
- 10%: Increase total number of kiosks – mainly for new usage
- 10%: Keep total number of kiosks consistent, but change usage or location
- 10%: Keep total number of check-in kiosks consistent
- 1%: Reduce the number of kiosks

### Adoption of self-service technology

- Kiosks for check-in: 60 Already done, 13 By end of 2013, 13 By end of 2011, 15 No plans
- Self-scanning of passports/ID documents at kiosks: 24 Already done, 16 By end of 2013, 17 By end of 2011, 43 No plans
- Kiosks for flight transfer self-service (e.g. print transfer boarding pass): 20 Already done, 11 By end of 2013, 16 By end of 2011, 52 No plans
- Print bagtags at kiosks: 12 Already done, 20 By end of 2013, 21 By end of 2011, 47 No plans
- Electronic gates (e-gates) for passenger self-boarding: 7 Already done, 9 By end of 2013, 18 By end of 2011, 66 No plans
- Kiosks to report delayed or mishandled baggage: 11 Already done, 18 By end of 2013, 70 By end of 2011, 7 No plans

Base: Those respondents answering – unweighted
54% expect to have “Shared Airport Operations Control Centres” by 2013.

Airport decision making depends on information held by various stakeholders and systems as well as a timely exchange of information. 32% of airports have already implemented shared airport operation control centres, with another 22% planning implementation by 2013.

Data-capable mobile devices for staff can provide access to real-time information across the airport. 50% of airports expect to implement mobile services for staff to allow remote updates to aircraft/gate and 41% expect to manage ramp/apron operations by 2013.

Airports are also cautiously beginning to utilise passenger flow monitoring technology to optimise resource utilisation and enhance planning capabilities. By 2013, 40% of airports expect to introduce passenger flow monitoring solutions, up from only 7% today.

**IT projects addressing airport operations**

<table>
<thead>
<tr>
<th>Service</th>
<th>2013</th>
<th>2011</th>
<th>Already done</th>
<th>By end of 2013</th>
<th>No plans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combined airport operations control centre</td>
<td>32</td>
<td>11</td>
<td>11</td>
<td>46</td>
<td>0</td>
</tr>
<tr>
<td>Introduction of digital radio services</td>
<td>28</td>
<td>7</td>
<td>13</td>
<td>53</td>
<td>0</td>
</tr>
<tr>
<td>Ground and vehicle tracking systems</td>
<td>21</td>
<td>15</td>
<td>14</td>
<td>51</td>
<td>0</td>
</tr>
<tr>
<td>Receiving flight updates through AIDX message</td>
<td>17</td>
<td>13</td>
<td>24</td>
<td>47</td>
<td>0</td>
</tr>
<tr>
<td>Collaborative Decision Making (CDM) tools</td>
<td>16</td>
<td>21</td>
<td>13</td>
<td>51</td>
<td>0</td>
</tr>
<tr>
<td>Passenger tracking across the airport</td>
<td>7</td>
<td>13</td>
<td>20</td>
<td>60</td>
<td>0</td>
</tr>
</tbody>
</table>

**Services via wireless, handheld devices used by staff**

<table>
<thead>
<tr>
<th>Service</th>
<th>2013</th>
<th>2011</th>
<th>Already done</th>
<th>By end of 2013</th>
<th>No plans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support baggage handling (airside)</td>
<td>31</td>
<td>10</td>
<td>8</td>
<td>51</td>
<td>0</td>
</tr>
<tr>
<td>Enable remote updates to aircraft and gate information</td>
<td>19</td>
<td>13</td>
<td>18</td>
<td>50</td>
<td>0</td>
</tr>
<tr>
<td>Remotely manage ramp and apron operations</td>
<td>17</td>
<td>9</td>
<td>15</td>
<td>59</td>
<td>0</td>
</tr>
<tr>
<td>Special passenger assistance (e.g PRM, VIP UM)</td>
<td>16</td>
<td>8</td>
<td>8</td>
<td>68</td>
<td>0</td>
</tr>
<tr>
<td>Manage the dispatch of passenger buses</td>
<td>16</td>
<td>8</td>
<td>4</td>
<td>71</td>
<td>0</td>
</tr>
<tr>
<td>Enable roaming passenger and baggage check-in at airports</td>
<td>11</td>
<td>13</td>
<td>8</td>
<td>68</td>
<td>0</td>
</tr>
<tr>
<td>Remote operation of airport assets such as ground power units (GPUs)</td>
<td>9</td>
<td>8</td>
<td>11</td>
<td>72</td>
<td>0</td>
</tr>
</tbody>
</table>

Base: Those respondents answering – unweighted
Major IT successes of the last 12 months
- Implementation of self-service drop off point (luggage), collaborative decision making tooling, security control centre (CCTV+)
- Mobile boarding pass. Operational WiFi deployment
- Improvement in airport security operations through the use of IT; implementation of server virtualisation
- A strong movement toward data integration and collaboration

Major IT challenges over the last 12 months
- Satisfying the Payment Card Industry requirements
- Very little allocation of funds for IT projects and operations. Inadequate involvement of IT in planning of airport strategies and decision making
- Implement airport collaborative decision making
- To have airlines on board, working together with the airport in the Fast Travel vision

Future challenges in the airport IT environment
- Achieving as well as maintaining Payment Card Industry compliance. Introduction of cloud computing - taking the benefits while minimising risks
- A complete backbone system and self baggage drop system
- Implementation of business intelligence for improvements in commercial activities
- Collaborative decision making; passenger flow management; self-service bag drop off; passengers information on mobile devices

Technologies making the most impact on airport environments in the near future
- Smart phones. Travellers will start to expect services to their handheld devices and airports are not ready for that yet
- Cloud/virtualisation, biometrics in passport, mobile solutions
- Tracking passengers in the terminal. Allow airport operator to accurately determine demand for services
- Internet protocol telephony, baggage sorter system, data exchange, disaster recovery planning. Keep availability, capacity and continuity
The survey objectives are to monitor key IT trends within the airport industry including:

- Management & Strategic Issues
- Passenger Operations & Processing
- Airport Operations & Security
- Successes & Challenges

The survey was first launched in 2004 and comparisons are made where appropriate with previous surveys, although the sample may vary between years. Questionnaires were sent to senior IT executives of the targeted airport groups during spring 2010. The survey is based on information from 128 respondents representing views of over 220 airports, covering the world regions of Europe (30%), North America (28%), Asia-Pacific (23%) and MEA and Central/South America (19%).

A comprehensive 100+ page PDF report is available to purchase, this will include commentary & analysis covering all of the following survey questions:

- Priorities for investment decisions
- Key technology investment trends in the next 3 years
- Actions taken as a result of current economic climate
- Long-term strategy for implementing of virtualisation technology
- Evolution of self-service technology (including e-gates)
- Strategy for mobile-based services for passengers
- Plans for passenger processing
- Plans for 2D Barcode Boarding Passes

For further details:
www.flightglobalshop.com
www.sita.aero/surveys