

Technology is having a profound impact on the travel experience of many passengers both on the ground and in the air, according to the seventh annual Airline IT Trends Survey, conducted by SITA.

From a global perspective, the airline industry is making strides towards its goal of sustainable profitability, partly by improving the efficiency of business operations, but also by encouraging the public to return to the skies with a more desirable travel experience. The survey reveals that this twin track approach is being underpinned by smart investment in information and communication technology, driven on the one hand by a customer self-service based business model that gives more convenience and control to travellers right through from the booking stage to the in-flight service, but also the simplification and streamlining of underlying airline operations.

However, this picture masks clear regional differences in the key areas on which airlines are focusing.

Results from Asia-Pacific airlines show a vibrant industry tapping into dynamic passenger growth with ambitious plans to deploy inflight communication technology to attract new passengers and encourage brand loyalty.

Part of the reason is cultural. Meeting the onboard needs of travellers has always been a key strength of airlines from the region, but also financial stability has returned, with passenger numbers exhibiting near double-digit growth over 2004. Only 18% of the region's airlines reported cutting IT budgets this year, a reduction on the numbers that have blighted previous years and while average spend on telecommunications and IT remains pegged at 2% of revenues for the second year running, this translates into higher IT budgets in absolute terms, as revenues rebound.

In sharp contrast is the fortune of North American carriers, traditionally the airline industry's technology leaders. The survey offers evidence that debt-laden airlines have put innovation on the back burner to focus on streamlining operations. Average IT budgets are 1.4% of revenues, down on the 1.9% recorded last year and lower than any other region.

As pioneers of many of the technologies that are now being embraced by airlines globally, North American carriers are to some extent able to take a breather while

the other regions play catch-up. For example, the survey confirms that air travel has already largely migrated online with airlines selling on average around 63% of tickets through web channels, far higher than the 24% and 10% of European and Asia-Pacific airlines, respectively. Widespread adoption of other passenger liberating technologies has followed, in particular, e-ticketing and self-service kiosks.

Meanwhile, for European carriers, the results from the survey support the view that transition to a low cost industry is starting to take shape. Investment in automating passenger touch points with transformational technologies, such as e-ticketing and self-service kiosks, are playing a part in the relentless campaign to reduce costs and narrow the gap between established airlines and the fiercely competitive discount sector.

Yet there are undoubtedly problems that still need to be addressed if the gap is to be bridged. Twenty-nine percent of airlines in the region are still 100% paper tickets, despite a campaign spearheaded by IATA to convert the industry to 100% e-tickets by the end of 2007. Significantly despite the cost savings, European airlines are also behind in replacing magnetic strip boarding passes with bar coded versions. Only 17% of airlines are currently using them, compared to 67% of North American airlines. This will limit the ability of passengers to receive boarding passes electronically on mobile devices or print them out at home or in the office.

A view from Asia-Pacific

Results from this year's survey show airlines in the Asia-Pacific region are sharpening their competitive edge by leading the adoption of onboard personal communication technologies. The region's airlines have long been the standard bearers for high levels of inflight service and responses to this year's survey indicate they look set to raise the bar further over the next couple of years.

Currently, 23% of airline respondents from the region offer an SMS link to the ground, against only 6% in Europe and none in North America, and the survey reveals plans for this figure to leap to 66% by the end of 2007, far in excess of the 29% and 11% of airlines in Europe and North America, respectively.

The story is similar for other onboard passenger communications. Thirty-one percent of respondents from the region already offer Internet and email access and with competition for business travellers never fiercer, the technology has become a 'must have' for the region's international carriers to the extent that 73% plan to provide the service by the end of 2007.

Use of mobile phones by passengers during a flight is still largely prohibited globally, but that is expected to change over the next couple of years. According to the survey, Asia-Pacific airlines will be keener than their counterparts in Europe and North America to adopt the onboard technology that makes it possible. Forty-five percent of airlines in the region plan to offer the service by the end of 2007, compared to only 20% of European and 11% of North American carriers.

While the short-haul market is getting tougher for the established airlines as a plethora of low cost airlines enter the market, their focus is shifting to defending market share in the long-haul segment, where service is of the essence. In particular, meeting the needs of business travellers has always been a key strength of airlines from the region and with them now returning in droves competition for their loyalty is stepping up a gear.

Keeping passengers happy is one thing, but airlines like to make a profit and as long as they remain hostage to high jet fuel prices, cost reduction remains a key priority, as the survey demonstrates. Forty-six percent of respondent CIOs rated short-term IT projects with proven cost savings as their highest priority, and this figure jumps to 86% if airlines ranking it second highest priority are taken into account.

This business reality is manifesting itself in other areas. The region's carriers appear reluctant to free themselves from the burden of ageing legacy infrastructure and bespoke applications. Over 40% said they do not expect to retire legacy systems for at least five years. By then European and North American airlines will largely have moved to open-based systems centred on Internet Protocol (IP). This will have a knock-on effect on the drive for simplification, because IP is a key facilitator for many of the new technologies that IATA is promoting in its campaign for a low cost industry. In particular, 100% e-ticketing with its target date of 2007 for the elimination of paper tickets.

But if achieving the e-ticketing deadline provides some concerns, another of IATA's messages on universal adoption of airline-neutral kiosks, or CUSS kiosks, as they are known in the industry, for check-in, should not. Asia-Pacific airlines are relatively late to the game as far as self-service is concerned, but this has enabled them to leapfrog several generations of kiosk technology, and now 77% of airlines plan to deploy the CUSS kiosks within five years, up from 9% currently. The result will be more convenience for the passenger, who can go straight to the first empty kiosk they see rather than search for an airline-specific kiosk.

Overall, results from this year's survey suggest that most airlines in the region are more optimistic about the future than previously, despite average airline spend on telecommunications and IT staying pegged at 2% of revenues for the second year running. As revenues rebound, this translates into higher IT budgets in absolute terms. Only two airline CIOs out of every seven saw a decrease in their budget this year. This is not surprising. The region is home to some of the world's most profitable carriers.



Key Findings

- Asia-Pacific airlines spend an average of 2.0% of revenues on telecommunications and IT
- 50% of airlines have seen their IT budgets increase over 2004
- 46% of airlines expect their IT budget to increase in 2006
- Short-term projects with proven paybacks were rated the highest IT priority by the most airlines – 46%
- At least 73% of airlines expect to offer some form of inflight data connectivity by 2007
- 45% of airlines plan to offer voice mobile telephony by 2007
- 36% of airlines have deployed self-service kiosks for check-in
- 23% of airlines use bar coded boarding passes
- 86% of airlines sell some tickets online
- 9.7%, or 1 in ten, of all tickets are sold online
Of these, 70% are sold on the airline's own website
- 22% of all tickets are fulfilled as e-tickets



A view from Europe

The transition to a low cost industry is starting to take shape for European airlines, according to results from this year's Airline IT Trends Survey, reflecting the regions insatiable demand for low cost travel. Established carriers are re-inventing their short haul operations to narrow the gap with discount airlines and join the low-cost party.

Automating customer touch points with transformational technologies, such as e-ticketing and self-service kiosks, remains the focal point for investment. Online sales now account for 24%, or nearly 1 in four, of all tickets issued, of which 85% are via the airline's own website, saving the airlines commission payments to agents and synonymous with the classic low-cost model.

Further savings are being garnered by fulfilling reservations with e-tickets rather than paper tickets. Each e-ticket saves approximately \$9 per ticket and European airlines are now on average fulfilling 35% of all tickets issued this way. The increasing online sales are also laying the foundation for the rapid take-up of self-service kiosks, which dramatically speeds up passenger processing at airports and saves airlines an estimated \$3.50 per check-in.

Currently, dedicated kiosks, designed for check-in to a single airline are prevalent, with 31% of airlines deploying them, but responses to the survey show that by 2007 common-use kiosks, that allows check-in to any one of a group of airlines that use an airport, will be the popular choice, with 60% of airlines having deployed them. This is not only more convenient for passengers, but also allows airlines to pool the associated costs to extract synergies.

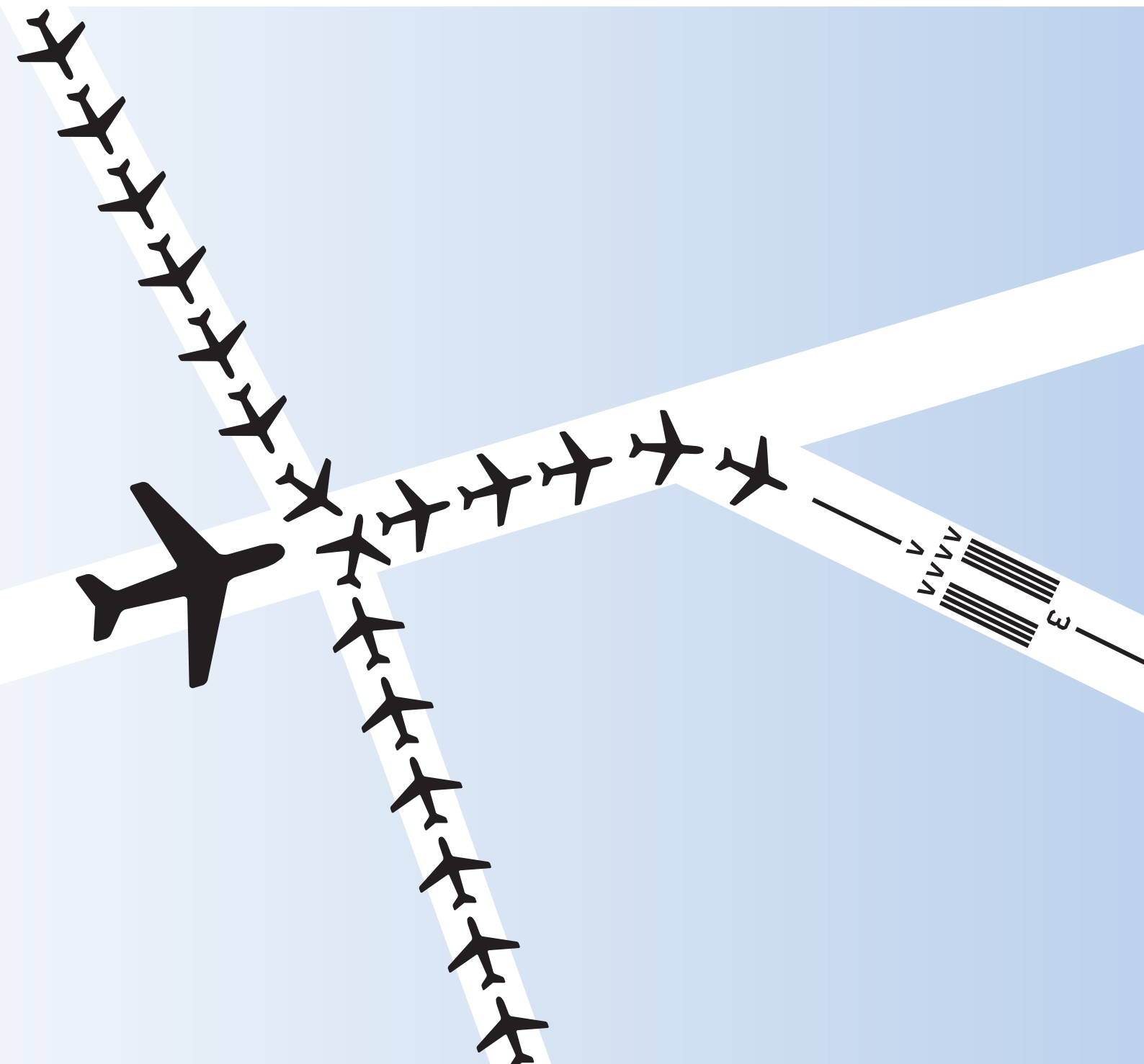
Yet there are undoubtedly problems that still need to be addressed if the gap to the low cost carriers is to be bridged. Twenty-nine percent of airlines in the region are still exclusively paper ticket-based, despite a campaign spearheaded by IATA to convert the industry to 100% e-tickets by the end of 2007, and despite the cost savings, European airlines are also behind in replacing magnetic strip boarding passes with bar coded versions. Only 17% of airlines currently use the technology, compared to 67% of North American airlines. This will limit the ability of passengers to receive boarding passes electronically on mobile devices or print them out at home or in the office.

IP is a key enabler for many of these self-service applications, and while European airlines have been

slower to accept the benefits than their North American counterparts, they are now slowly catching up. Forty-six percent of European airlines have already completed the migration to IP, and this rises to 57% if those where a majority of the migration is completed are included, compared to 78% of North American carriers.

While the short haul market is characterised by stifling price competition, the profitable long haul sector is experiencing a return of passenger demand without the large drop in yields. In part, this is due to a reluctance of airlines to simplify their pricing to make it web-friendly, but another issue is the complexity associated with putting multi-leg, multi-carrier journeys online, making it more difficult for passengers to use the Internet for comparison shopping. Fifty-seven percent of airlines cited pricing complexity as a major business issue associated with online ticket sales, while 46% considered lack of interlining an issue.

Having successfully defended long haul routes from major price erosion, the survey indicates that there is renewed interest by airlines in technology investments that enhance the inflight service and solidify customer loyalty. Passengers will increasingly find they can stay connected during the flight using a variety of means - SMS, Internet access, email, and mobile phone. Significantly around 30% of airlines expect to be offering at least one of the data connection options by the end of 2007, while 20% have plans to offer the less mature and more contentious, voice mobile telephony.



Key Findings

- European airlines spend an average of 1.9% of revenues on telecommunications and IT
- 40% of airlines have seen their IT budgets increase over 2004
- 29% of airlines expect their IT budget to increase in 2006
- Short-term projects with proven paybacks were rated the highest IT priority by the most airlines – 54%. Customer service projects were ranked highest by only 20%
- At least 31% of airlines expect to offer some form of inflight data connectivity by 2007
- 31% of airlines have deployed self-service kiosks for check-in
- 17% of airlines currently use bar coded boarding passes
- 83% of airlines sell some tickets online
- 24%, or nearly 1 in four, of all tickets are sold online
Of these, 85% are sold on the airline's own website
- 35% of all tickets are fulfilled as e-tickets
- 20% of airlines plan to offer voice mobile telephony by 2007

A view from North America

It has been a bumpy ride for the North American aviation industry over the last three years and evidence from this year's Airline IT Trends Survey shows it is taking its toll on their technology superiority.

Innovation has been replaced by streamlining as airlines engage in a battle of endurance. Average investment by the region's airlines in telecommunications and IT represents only 1.4% of revenues, a drop on the 1.9% recorded last year, and much lower than the 2.0% and 1.9% spent by Asia-Pacific and European airlines, respectively.

Asia-Pacific carriers, in particular, are raising the stakes. Results of the survey indicate that new areas, such as inflight access to Internet and email, are being widely embraced by airlines from the Asia-Pacific region, but largely ignored by the North American market, despite the potential for developing new revenue streams and consolidating customer loyalty.

Other innovations on the horizon, such as replacing bar-coded baggage tags with the more robust Radio Frequency ID (RFID) tags to reduce levels of mishandled baggage, also appear to have little appeal for North American carriers. While its high cost means no airlines see RFID as today's technology, 64% of Asia-Pacific carriers expect to have deployed it within four years, nearly seven times the number of North American carriers.

The different financial environment faced by airlines in the two regions provides much of the answer.

The Asia-Pacific region is home to some of the world's most profitable carriers, while the North American region is home to the most indebted. North American CIOs are being asked to deliver business results without upfront investments, so not surprisingly 89% of them cited 'short-term projects with proven payback' as either their first or second priority for investments, in the survey, while long-term strategic projects were rated much lower.

Combine all those trends and the picture is of an industry in a survival-of-the-fittest mindset, but this would be an unfair conclusion. To some extent it is more a re-investment in innovation story. North American airlines are already much further along the technology curve, particularly in providing a self-service model for passengers, than those in other regions. As pioneers of many of the technologies that are now being embraced

by airlines globally, North American carriers can afford to take a breather while the other regions play catch-up.

This is evidenced by the survey results. For example, air travel has already largely migrated online with airlines selling on average around 63% of tickets through web channels, far higher than the 24% and 10% of European and Asia-Pacific airlines, respectively. Widespread adoption of other passenger liberating technologies has followed, in particular, e-ticketing and self-service kiosks.

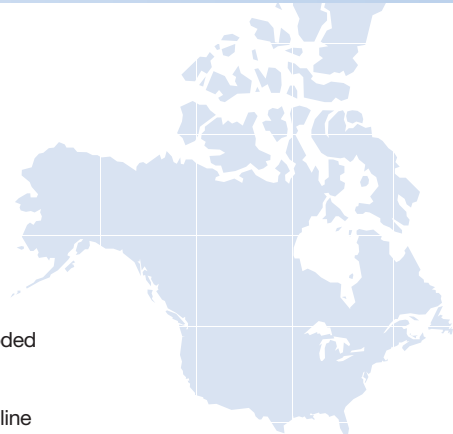
In addition, bar-coded boarding passes are mainstream in the North American domestic market with 67% industry acceptance, but still a fringe offering with European and Asia-Pacific airlines.

But how long can North American carriers curtail innovation for? Using technology for streamlining rather than innovating will only take a business so far. As each customer touch-point from the reservation stage to boarding the aircraft becomes automated, the only differentiator valued by travellers will be the inflight service. It may then be the turn of the North American carriers to play catch-up.



Key Findings

- North American airlines spend an average of 1.4% of revenues on telecommunications and IT
- 63%, or more than 3 in every five, of all tickets are sold online. Of these, 55% are sold on the airline's own website
- Customer service or marketing advantage projects were rated the highest IT priority by the most airlines – 56%. Short-term projects with proven payback were ranked highest by 44%
- At least 11% of airlines expect to offer some form of inflight data connectivity by 2007
- 11% of airlines plan to offer voice mobile telephony by 2007
- 56% of airlines have deployed self-service kiosks for check-in
- 67% of airlines currently use bar coded boarding passes
- 85% of airlines sell some tickets online
- 67% of airlines expect their IT budget to increase in 2006
- 56% of airlines have seen their IT budgets increase over 2004



About the Airline IT Trends Survey

The 'Airline IT Trends Survey' is commissioned annually by SITA and Airline Business magazine.

Now in its seventh year, it has become the industry's strategic IT benchmark survey. Responses were received from senior IT executives representing the world's top 200 airlines, together with key players in cargo, charter and regional markets. NSM Research Limited undertook the study in the first half of 2005. All individual results remain strictly confidential.

The complete research results of the Airline IT Trends Survey 2005 are now available for purchase on CD, providing the responses to all of the survey questions together with a commentary. Although individual replies remain strictly confidential, results are broken down by geography and airline size, also with results weighed by revenue. All 2005 survey respondents will receive the CD for free. SITA, Airline Business and Airports Council International (ACI) also undertake the 'Airport IT Trends Survey' and together the two IT Trends Surveys present a detailed insight into the aviation IT landscape.

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