A MAGAZINE FOR AIRLINE EXECUTIVES

2006 Issue No. 2

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A Conversation With...

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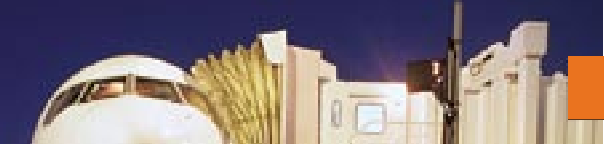
Globalization
FACT OR FICTION

By Ian Tunnacliffe | *Ascend* Contributor

The quickening pace of globalization in the airline information technology industry will have many implications for carriers, including the development of software that is less expensive to own and operate.

Photo by Michelle Kennedy



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One of the main outcomes of globalization has been the outsourcing of software development, primarily to countries such as India, which offer highly trained software engineers at lower labor costs than many western countries.

In the 1980s, Swissair established a transaction processing facility, or TPF, development shop in Malaysia to code EDIFACT interfaces. This was esoteric stuff even within the airline information technology world, and few people took much notice. Twenty years later, and Swissair is sadly no longer operating, but the move to globalize the provision of airline information technology is proceeding apace.

Today, there has been much progress made toward the goals of globalization and liberalization.

When thinking about globalization in the market for information and communication technology in the airline industry, it is important to recognize which globalization is being referred to. The airline industry itself is very far from being a global and liberal entity — despite some progress during the last decade or so. On the other hand, the world is becoming decidedly flat for IT vendors.

Airlines won't be fully global and liberal for many years, if ever. This is a consequence of the regulatory regime under which they operate, with national authorities erecting enormous barriers to consolidation in the industry. There are currently around 60 airlines in the world with revenues of more than US$1 billion out of a total of well over 500 carriers. This represents the most fragmented of all the major industries, and among the many consequences of this fragmentation is that airlines' buying power for all services, including IT, is hugely diluted. Economists would argue that the largest airline would buy better solutions, perform better and come to dominate. This is certainly the thinking at some major carriers. While this may work in certain geographical segments, it does not hold true for the world as a whole as the regulatory environment prevents significant international mergers.

HIGHlight

Just 10 years ago, the idea of outsourcing software development was highly radical. Today, it is completely mainstream. This has led to a major change in development methodology.

Many airlines have attempted to redress the dilution by joining industry groups to pool buying power. However, for these to be truly effective, the largest players have to share their buying power with smaller ones. Reconciling their different perspectives can be challenging if not close to impossible.

These buying groups may be the three global alliances, which now represent well over half of the airline business in the world, or other airline-owned entities such as SITA and ATPCO that exist for the sole purpose of providing a specialist service to the industry as a whole. The global distribution systems were also in this category for the first decade of their existence but have now all been sold off — to public owners or a combination of private equity and minority airline shareholders.

Technology services are not generally governed by the nationalistic constraints that affect airlines and consequently are already more global. Perhaps the best example is illustrated in the history of the GDS business. In the 1970s, most major U.S. airlines and many international ones distributed reservations terminals to travel agents in their markets. By the mid 1990s, the large investments needed to support a functionally rich, stable and competitive GDS had resulted in consolidation to the extent that there are now just four GDSs operating on a worldwide scale and a handful of regional players — mostly in Asia. The concentration of GDSs along with the fact that they don't really need to compete with each other for airline business has meant that their prices have increased even when airline revenues and yields have fallen.

GDSs are a special case because they have not really needed to compete for airline business but other suppliers have consolidated, too. It used to be common for airlines without in-house IT capabilities to buy services from another airline. That business has almost dried up, with airlines (British Airways, Aer Lingus) either abandoning it altogether or spinning off their IT department into a separate company (Emirates' Mercator and Lufthansa's Lufthansa Systems). As a result, the market for airline IT solutions is gradually becoming more concentrated.

Given this background, it's worth considering some specific consequences of globalization and making an assessment of the likely impact:

- Concentration of airlines leads to a reduction in opportunity for specialist vendors — In the short term, this is unlikely. Cross-border mergers are still rare and even within jurisdictions there have been very few airline mergers. Star Alliance has made some highly publicized deals for common IT services, but as yet the take up has been poor. Witness the deal with Amadeus for

HIGHlight

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the so-called "common IT platform." So far, none of the Star Alliance airlines have migrated to the new platform, and it is by no means clear that even Lufthansa will take the full Amadeus offering.

- Globalization and liberalization lead to increased pace of technology change at airlines — There is also little evidence for this proposition. Major advances in airline IT such as online distribution and self-service capabilities have been driven by individual airlines serving their core markets. Many of the most radical changes have been driven by low-cost carriers, which almost by definition are the least global of all airlines.
- Globalization leads to the outsourcing of software development — This is definitely true, and it has the most radical impact of globalization. Just 10 years ago, the idea of outsourcing software development was highly radical. Today, it is completely mainstream. This has led to a major change in development methodology. Airline software developers traditionally were technicians with deep subject matter expertise who worked closely with business users in their organizations. Today's developers are likely to be Indian graduates with highly developed software engineering skills but no real knowledge of the business functions they are supporting. The consequence is that formal software development methodologies have become essential to allow skilled programmers without business knowledge to deliver effective products. The transition between the old and new models is very painful for many, but once it has been made, the result should be software that is cheaper to run, maintain and operate.
- Business processes become key intellectual property — In a world where writing code is the predictable end product of a structured method, that coding process ultimately becomes a commodity. The organizations that own the intellectual property rights in well-documented business processes are the ones that will be most likely to accumulate value. Few airline chief executive officers would consider this when deciding to outsource, but it is where they must be on their guard. Technology companies will seek to acquire and appropriate intellectual property in the course of development and service delivery. Airlines must ensure that they retain ownership of their business process knowledge or obtain proper recompense if they decide to part with it. Control of IPR becomes the bargaining chip in vendor negotiations.
- New entrant IT companies will seek to move up the value chain — Major IT companies have outsourced much of their coding work to emerging countries, notably India. Companies in India will not be content for much longer with work at the bottom of the value chain as this will restrict their ability to add value and drive margin. Already, Indian companies have design authority for products; either by acquiring them from western companies such as Kale Consultants has done with products from former British Airways subsidiary Speedwing, or by making substantial investments in building new products from the ground up, as IBS has done with its aiRes product. In the hardware world, Lenovo of China now owns full product rights to the range of PCs it used to build as a subcontractor to IBM. It is this move up the value chain by well-managed and well-financed enterprises in emerging economies that represents the biggest impact of globalization on the airline IT industry. It may lead to lower prices, although this is uncertain. It will certainly drive significant profits for those capable of ascending the value chain.

Globalization is a fact of life, and there is little sign of its impact diminishing. Airlines themselves are insulated from its most far-reaching effects. Eventually, this will change but possibly not for years. Technology vendors, on the other hand, are impacted right now.

If outsourcing development to India was radical 10 years ago, in another 10 years it is likely that Indian and possibly Chinese firms will control a substantial part of the market for IT supply to the industry. The question is who will own the intellectual property?

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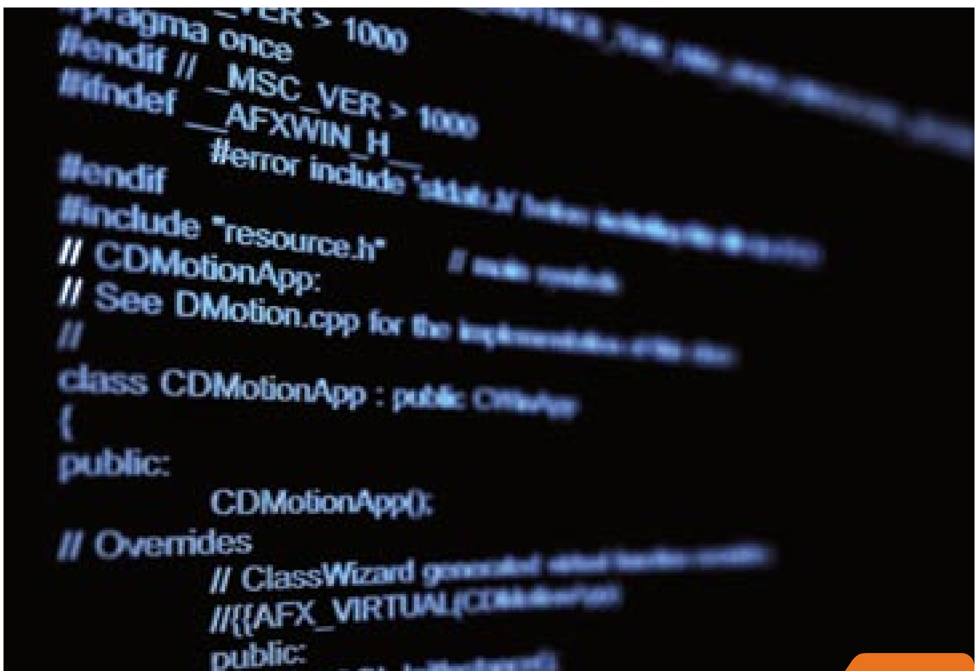

Photo by Andrey Prokhorov/iStockphoto.com

Computer coding, the result of a structured method, promises to become a commodity in the technological world. Those companies that protect the intellectual property rights in well-documented business processes will gain an edge.