

An Airways International White Paper
March 2010

THE GROWING IMPERATIVE OF EFFICIENT COST RECOVERY FOR ANSPS:

Can technology help the billing process?

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Executive summary

- There has been a strong drive towards commercialization amongst Air Navigation Service Providers (ANSPs) in recent years as national governments look to improve their performance.
- ANSPs are still labouring under an inflexible revenue model, in which they are highly reliant on fixed user charges.
- At the same time the airline industry is under enormous pressure, sustaining multi-billion dollar losses, and experiencing a reduction in flight movements.
- These economic realities are in turn creating a difficult situation for ANSPs. Simply raising user charges to cover costs is less of an option with the airline industry under such pressure. A vicious cycle exists where higher user charges can lead to fewer movements which triggers a drop in ANSP revenue.
- Industry experts say the traditional ANSP charging model wasn't designed for a crisis of this magnitude.
- ANSPs are responding by cutting staffing and operational costs as much as possible without comprising safety.
- Improving the efficiency of the billing process represents an opportunity for ANSPs to increase the quantum and efficiency of their cost recovery.
- In many ANSPs, a gap exists between flight data collection and accounting systems, which is typically filled by slow, expensive and inefficient systems and processes.
- An integrated approach, that automates the billing process from flight tracking through to an issued invoice, can deliver significant benefits for most ANSPs.
- Billing speed and accuracy are increased, no costs are left unrecovered regardless of flight type, and with faster invoice presentation and greater confidence in the results, payment from customers is likely to be faster.
- Above all, an integrated billing process helps position ANSPs for the future, where a more proactive, customer-focused level of service will become the industry norm.

The cost recovery crisis

A shifting ANSP landscape

Like any infrastructure service, Air Navigation Service Providers (ANSPs) are typically low profile organizations unless something goes wrong. The overriding driver of the sector is still ensuring safe air movements around the world, although there is a growing global focus on business efficiency, which has been sharpened by the airline industry crisis.

Traditionally ANSPs have been government departments, but there is an increasing number of state-owned companies and even privatized organizations. Many national governments have experimented with commercialization as a method of improving their ANSPs' performance, which has produced some extraordinary innovation. By 2005, over forty countries had commercialized their ANSPs -- a process that typically involves the introduction of new funding methods for the reorganized ANSP, new governance arrangements, and new mechanisms for safety and economic regulation.

Today ANSPs are becoming more independent and therefore responsible for recovering the cost of their operation through billing airlines for their usage, and potentially returning dividends back to their owners. These trends have put cost recovery strategies into sharper focus.

Inflexible revenue model

In most countries, air navigation services including air traffic control, are paid for by those who use the services – airlines and commercial aviation customers, businesses with aircraft fleets and general aviation including recreational aircraft operators. ANSPs have developed a system of user fees to provide the revenue necessary to fund the air navigation system, usually following International Civil Aviation Organization (ICAO) policies.

That makes ANSPs typically long-term, fixed cost operators:

- ATM is the primary business for ANSPs, typically accounting for 90% of revenue.
- According to ICAO figures 85% of revenue is from fixed ATC Service Costs, 15% variable.
- ANS charges account for 90% of total income and en route charges account for 70% of those charges.

This revenue structure means nothing is more vital to the economics of ANS than cost recovery. The revenue the ANSP earns pays the salaries of controllers and others, covers all operational costs such as electricity and maintenance, and covers debt payments for the purchase of modern equipment and facilities.

As pure cash flow operators, ANSPs must seek full recovery of operating costs from customers and without diversified income streams, can get exposed in times of trouble.

Air industry's troubled times

Rising unemployment, shrinking private incomes, and a confidence crisis have led passengers to cut down on travel, shun business class, and switch from airlines to alternative forms of transport.

In March 2009, the International Air Transport Association (IATA) predicted that losses for the global airline industry would reach USD \$4.7 bn in 2009, but in May revised its estimate of the losses for 2009 to USD \$9 bn, and subsequently to USD \$11 bn in September. For 2010 it is to continue at a level of USD \$3.8 bn.

In Europe more than 33 carriers have become insolvent, or are just about, since the start of the crisis (from September 2008 to September 2009).

From a manufacturers' point of view, 2009 was equally bad. To October 2009, Boeing had secured total orders of 195, and 111 cancellations for a net inflow of 84 orders only. In the same period, Airbus had 149 orders and 26 cancellations, for a net inflow of 123. In comparison, last year both companies logged respectively 662 and 777 orders.

The same trends have been seen in air traffic control. In December 2009, Civil Air Navigation Services Organisation (CANSO) member ANSPs controlled 0.7% fewer movements than in the same period last year.

ANSPs caught in a vicious cost cycle

In this turbulent environment, ANSPs can be hampered by their inflexible revenue models and caught in a vicious cost cycle. Traditionally under-recovery of costs by ANSPs resulted in higher user charges. But given the dire state of the airline industry there has been enormous pressure on ANSPs to avoid passing these costs on, and focus on cutting expenses instead.

ANSP cost cutting cannot keep up with drop in revenues however. Charges have to increase – for example Air Traffic Control unit rates rose in Q1 2009 by an average of 3.4% throughout Europe. This increase was justified by the cost recovery principle that allows each ANSP to compensate for the diminishing traffic by raising charges.

But higher charges can lead to fewer movements and the cost pressure cycle continues. There is increasing comment in the sector that the funding model is struggling to cope with a downturn of the current magnitude.

The ANSP response

Cutting staff and operational costs

How are ANSPs responding to the crisis? Staff-related costs are a key focus. Freezing salaries and wages; reducing over-time and vacation leave; reducing use of out-sourced/external staff; optimising rosters and shift planning; reviewing training programs, without impacting capacity; and even adjusting retirement ages are strategies being used.

In terms of operational costs, ANSPs are reducing discretionary expenses, like travel; negotiating concessions with suppliers; reviewing levels of service, where it can be done without compromising safety; deferring and/or reducing capital spending; extending depreciation/amortization periods; considering financial restructuring and debt financing; and attempting the difficult challenge of finding new sources of revenue.

The billing gap – a missed opportunity

Improving the billing process represents a huge opportunity for ANSPs to increase the quantum of their cost recovery, while lowering the expense of collecting these funds. The application of information technology to the billing process is a key potential area of efficiency gain.

ANSPs are of course already technology-intensive organizations by nature. Huge sums are invested in sophisticated ATM systems, which operate at higher levels of efficiency and reliability. Most organizations also have sophisticated accounting systems in place. ERP systems like Oracle, SAP or quite simple systems that are effective at billing customers.

However there is often a gap between the operationally-focused ATM systems and the customer-facing accounting systems. Both systems work well but the issue is typically having quality data on who to bill and how much to bill.

Billing for many ANSPs still requires labour-intensive manual intervention which leads to errors and wasted time and costs. Flights need to be tracked down to determine who to bill, and billing data is also often missing or incomplete.

An integrated approach to the billing process

The best strategy is to have an integrated, end-to-end approach to the collection, processing and billing of charges to service users. That approach needs to recognize existing investments in ATM systems at one end of the continuum, and accounting systems at the other.

An ideal solution is implementing a sort of 'middleware' that enables ANSPs to capture flight data from multiple air traffic management systems; use established policies to calculate

charges and taxes to produce accurate invoice data for billing; and raised charging or invoice issues for intervention prior to billing.

This middleware approach should, in real-time:

- Identify every service used by a flight for each service provider, whether an international airline client or a small aero club flight.
- Determine whether and how that service is chargeable, allocating the correct charging policy.
- Automatically calculate correct charges and appropriate taxes.
- Create invoice data that can be seamlessly integrated into the accounting system.

Potential gains from integrated billing

Using information technology effectively has a number of positive effects on ANSP operations.

- Elimination of manual processes and inefficient systems: Re-entry of data results in missing information, transcription errors and a lack of confidence in process accuracy. An integrated, automated approach increases billing speed and increases accuracy.
- No costs are left unrecovered. Data integrity is ensured, eliminating the uncertainty and cost of a manual data collection and checking process. You can be confident that all costs that can be recovered will be, and that disputed invoices can be quickly resolved with customers.
- A shortened billing cycle: identifying charges automatically and accurately means you can increase the speed of billing. Slow manual data processing is eliminated, customers are less likely to dispute and delay payment and invoices can be created immediately.

Airways New Zealand have implemented the integrated approach to streamline their billing process and achieve a bottom line improvement of \$NZ 2.6m. This consisted of:

- \$NZ 1.5m saved by reducing working capital requirements. This was achieved by improving the speed of invoicing and reducing the average age of debtors on 98% of the organisation's revenue.
- \$NZ 1.1m in additional annual revenue gained from improved quality of data, and the enhanced visibility to charging policies and processes.

Positioned for the future

Improving billing efficiency is not just about improving cost recovery in a time of crisis, but about positioning an ANSP for the future.

Government-run ANSPs have been characterized by high standards of safety and professionalism, but rigid, cost-driven and lacking incentives for improving their performance.

The trend is towards more business-focused ANSPs, with the same high safety standards, but much more customer-orientated, transparent and focused on continuous improvement.

An integrated approach to billing positions an ANSP for the future. From the traditional cost-driven administrative approach, ANSPs can move to more business-focused approach, where costs are open and transparent, there is flexibility around charging approaches and customers have real confidence in the billing process.

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Airways International

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Airways International was established in 1992 to take the parent company's skills and experience into the global arena. Airways International has worked with organizations in more than 65 countries, offering a portfolio of services and products aimed at:

- strengthening and commercialising ANS providers
- designing, planning, implementing and project managing air navigation systems and associated services
- training air traffic controllers and air navigation system engineers and technicians
- providing support services including quality assurance, auditing, flight inspection and equipment maintenance.

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