ONE ORDER MAY DELIVER VALUE - EVENTUALLY

First View: Rapid analysis of breaking news, providing perspective

THE FACTS

IATA continues to promote its new standard for communications between Order Management Systems, delivery and accounting systems. There have been some limited proof of concept projects and a number of airlines have committed publicly to the new standard.

THE ANALYSIS

In many ways we are seeing history repeat itself. When NDC was launched in 2012 a casual observer could have been forgiven for believing it to be a complete root and branch overhaul of airline sales and distribution. In fact, it is no more and no less than a set of XML messages that have the potential to allow airlines to update some or all of their processes and to communicate the results of those updates to their indirect distribution channels. We are now seeing a similar reaction to ONE Order so it may be worthwhile restating exactly what IATA has defined in its ONE Order Working groups.

ONE Order defines a small set of new XML messages that allow communication between booking systems, delivery systems and accounting systems without the need for accountable documents as part of the interaction. It is predicated on the assumption that airlines will have an Order Management System (OMS) and will already be using NDC messages in their shopping and booking processes. The OMS belonging to the airline responsible for the Order – known as the Offer Responsible Airline or ORA, will be the "single source of truth" about the Order. This implies that all IT systems involved in delivery and accounting have real-time communications with the OMS.

In the traditional airline world, the key systems are usually described as Reservations (including Inventory), DCS and Revenue Accounts. In the world that IATA is trying to create they are more often known as Order Management Systems, Delivery Systems and Accounting Systems. Shopping processes are driven by Offer Management Systems based on today's inventory and revenue management functions. Communication between the three main nodes in the Order network is managed using messages that no longer refer to Passenger Name Records (PNRs), eTickets and Electronic Miscellaneous Documents (EMDs) but instead describe Orders made up of Services that have values and statuses. The expectation is that this structure will allow airlines to simplify their processes so that selling, delivering and accounting for an airline product will be done using tools and techniques

closer to those in the general retail industry. According to IATA the expected benefits include enhanced ability to deliver end-to-end travel products, improved customer experience, better quality data and analytics and shortened cash flow cycles. Some of these things will be achieved by enabling airlines to use mainstream technologies from the retail industry in place of the highly specialised and complex systems that they use today. An important goal is to enable the more complex airlines that use tickets and associated EMDS to simplify processes and reduce costs. This should enable them to compete with their low-cost cousins who dispensed with tickets many years ago and also ignored the traditional distribution channels favouring direct sales in the call centre and on the web.

T2RL agrees that if the airline sales and distribution environment were being built today from the ground up it is likely that it would look something like the IATA vision. Unfortunately for that view the industry of around a thousand airlines and hundreds of thousands of sales outlets has been operating for some fifty years using PNRs and tickets. These structures are deeply engrained in every commercial process including those vital activities that result in money moving from the customer to the distributor to every airline participating in the itinerary. Airline CFOs will be extremely reluctant to support any changes that risk disruption to those revenue and cash management functions. This implies that the change to an order-based environment will happen slowly and cautiously if it happens at all.

Ultimately it will come down to a cost/benefit calculation. Migration away from a transaction centric system based on PNRs and tickets to a customer centric system based on Orders across the whole industry will be a hugely expensive proposition. Will the benefits delivered be sufficient to justify the necessary investment? One thing is clear. The industry will have to adopt an approach that allows the old and the new to live side by side for an extended period. There will be no knife-edge cutover.

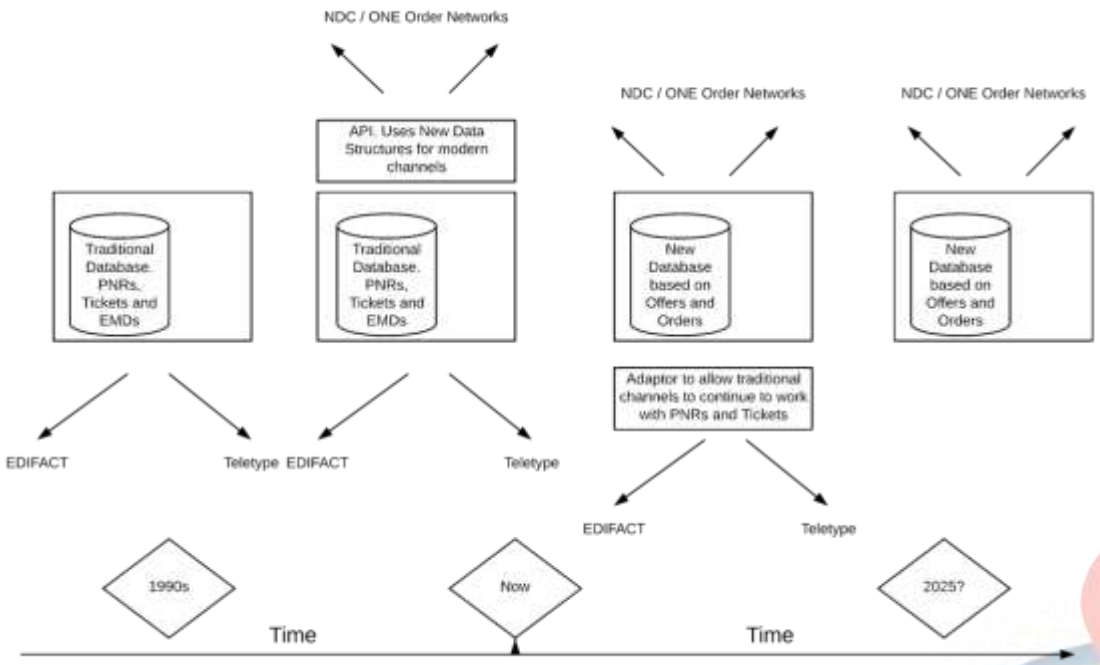

Figure 1: Evolution of Airline Commercial Systems

Already major providers of airline technology platforms like Sabre have indicated that they intend to follow this path. Today they have built a set of adaptors that allow existing systems to talk in the new language. This means that they could start to implement ONE Order functionality with delivery and accounting systems ahead of the time when significant booking activity is taking place using NDC. Over time they intend to replace the PNR database with an Orders one and deploy adaptors to allow their systems to talk to the old world. Eventually the new world will be all there is. Sabre's biggest rival Amadeus has recently completed its migration away from the TPF operating system in favour of industry-standard n-tier architectures. This should facilitate its use of applications and services developed for the wider commercial world that have never been available under TPF.

The evolution will be expensive for the technology providers, not only the ones offering internal booking systems to the airlines but also those supplying the external connections of which the most significant are the GDSs. The total expenditure across the industry will be measured in hundreds of millions of dollars and euros. For the technology companies there are only two ways of recouping this investment. The new architectures may have much lower operating costs, especially if the use of commodity technology components enables cloud deployment to replace dedicated data centres. The other possibility is to extract higher revenues from the new systems by charging existing customers more or by attracting a wider range of paying customers.

Customers will only be prepared to pay more if they see direct margin improvements as a result of using the new systems. Over the last 15 years or so a belief has grown up across the industry that "airlines must become retailers" and this way lies prosperity from increased revenues. T2RL has always been somewhat sceptical of this view given the market position of Expedia, Booking and other expert travel retailers. T2RL sees airlines primarily as manufacturers. Some, like Southwest for example, have established a very successful business model in which they sell most of their product directly to the consumer, but this is much more like operating a factory shop than acting as a true retailer. To date, Southwest has been unable to convert its leading position in the sale of airline seats online to the sale of other, non-flight related products and services. The essence of the retail model is that the retailer holds a stock of products from multiple manufacturers and offers a choice between those products to meet the consumer's needs. That is not to say that there is nothing to learn from the retail industry but the suggestion that airlines will transform overnight into mega-retailers stretches credulity.

One thing that NDC and ONE Order should facilitate over time is the technical ability of airlines to bundle third party products with their flights to create complete travel packages. T2RL sees some value in this. There may be options to sell a few products such as airport parking, transfers and lounge access in conjunction with flights, but it is very hard to see all ONE Order airlines encroaching on the business of complete packages of flight, hotel, surface transport and activities that real retailers like Expedia can offer. In fact, the converse may be true. NDC and ONE Order may make it easier for true retailers to access airline product for sale to the consumer. Should this happen it is possible that airline margins will

end up being squeezed as the benefits flow to the retailer or the customer. Clearly each airline must set its own strategy, and some will do it better than others, but it is hard to see third party ancillary sales generating the revenue necessary to justify a significant investment in ONE Order.

As indicated above the new messages in the ONE Order standard are aimed at communications between airline Order Management Systems and those of delivery partners and airline accountants. Delivery partners for air services are primarily ground handlers and the airlines' own airport operations departments. In most cases these are using the Departure Control Systems supplied as part of the airline's PSS and this will not change. In a minority of cases the ground handler uses its own DCS which will need to be updated to accept incoming passenger information via ONE Order messages rather than the Passenger Name Lists used today. It is expected that partners delivering third party services like parking and transfers will be using systems that can send and receive XML messages from the OMS. Here there will be some real value from implementing ONE Order but questions remain as to the magnitude of that value.

It is perhaps in the communications with accounting systems that ONE Order can offer the most immediate value. Today's processes require ticket coupons to be pulled[1] on flight departure and sent to the Revenue Accounts System in a batch process. This can introduce delays in revenue recognition and interline billing. In a ONE Order environment communication with the accounting systems takes place in real time and this can lead to an acceleration of the accounts cycle. For a multi-billion dollar airline taking a day or two out of the cash cycle has real value, although in absolute terms credit and debit cards dominate the transaction volumes and values.

One of the big selling points of ONE Order in the IATA publicity has been that the Order Management System of the airline that takes the Order will become the "single source of truth" about the booking. This creates a requirement that every action taken on an Order is recorded in the OMS which in turn means that there must be continuous connectivity between all the systems involved in delivery and accounting. It also begs questions about which airline is responsible for managing any disruption to a customer's journey on an interline partner. The interline partner will have its own Order with its own identifier. Of course, this may be cross-referenced with the original Order but it still leaves open the possibility that the partner airline will prefer to use its own references to manage its internal processes. In short it is hard to see how ONE Order offers any customer service advantage over current processes in which interline partners are already able to cross reference their PNR locators.

[1] In the modern world the e-ticket coupons are "pulled" electronically but the process of feeding Revenue Accounts is still typically a batch one

The last advantage claimed for ONE Order is that it will allow enhanced data gathering and analytics. This probably has some basis in fact due to the standardised nature of the exchanges inherent in ONE order. However, ONE order is primarily about delivery and operations. The real value of big data analytics will only come when it is possible to integrate ONE Order data with shopping data. NDC allows comprehensive data on whatever shopping is done for the airline's own services but information on marketplace shopping across all airlines will remain the preserve of the aggregators of whom by far the most important are the GDSs.

In summary ONE Order, in conjunction with NDC, offers some real possibilities for process improvement in airlines. Having said that it is far from clear that those process improvements will offer sufficient benefit in terms of revenue improvement or cost reduction to justify the substantial investment that will be needed to roll it out across the industry. If it is to be successful the impetus must come from the small number of technology providers that dominate provision of selling and delivery systems to the world's airlines. If Sabre, Amadeus (including Navitaire) and Travelsky together commit to the change it will happen.

THE SPECULATION

The airline business is much more complex than most consumer industries. IATA has made "Simplifying the Business" a cornerstone of its activities for more than a decade and NDC/ONE Order is a big part of that. If it is truly successful then it may be as easy to book an airline Service as it is today to buy a bag of potatoes or a book. If that happens then what will keep a mega retailer like Amazon from dominating the air transport market in the same way that it now dominates conventional retail? Unlike the GDSs, which largely mediate high-yield business travel booked by agencies, Amazon would doubtless come after the high volume and low margin leisure traveller, further squeezing airline profitability.

A less distant prospect is a world in which there is a patchy implementation of NDC and ONE Order. If the global airline industry is to continue to function at current levels of integration there will be a need for some means of enabling old to talk to new and different versions of the new to talk to each other. This represents a substantial opportunity for technology providers to create the necessary services to allow this to happen. The obvious candidates to do it will be the major GDS/PSS companies; Amadeus, Sabre and Travelsky, but there could also be an opportunity for SITA and ATPCO to build out their NDC Exchange hub to provide conversion and translation services. Both organisations have already proved the value of working together.

T2RL is an independent research and consulting company that specialises in the market place for airline IT systems. Based on data gathered and analysed since the year 2000 it has defined and tracked classifications of airlines and their IT providers. Its research is used by airlines to enable them to make informed choices of systems and vendors and by the vendors to help them develop products

that best meet the current and future needs of the airline industry. For further information, visit our website at www.t2rl.com.